Ranger Rick's nature magazine

July, 1967

PUBLISHED BY THE NATIONAL WILDLIFE FEDERATION

I'm small.
I'm hardly anything at all.
When I look
At the sky outside,
Or a forest tall,
Or the ocean wide—
I'm small!

But then, again,
When I see
A black ant crawl by,
Or an earthworm dig,
Or a beetle fly—
I'm big!

by Joan J. Lohmann

OBJECTIVES: To give boys and girls a year-round program of activities, adventure and knowledge which will help them appreciate and enjoy nature. To help them know and respect all things that grow and creatures that move, that all may desire to conserve and wisely use the vital natural resources of the world.

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Front cover photo of Snail on a Mushroom by Robert Dunne

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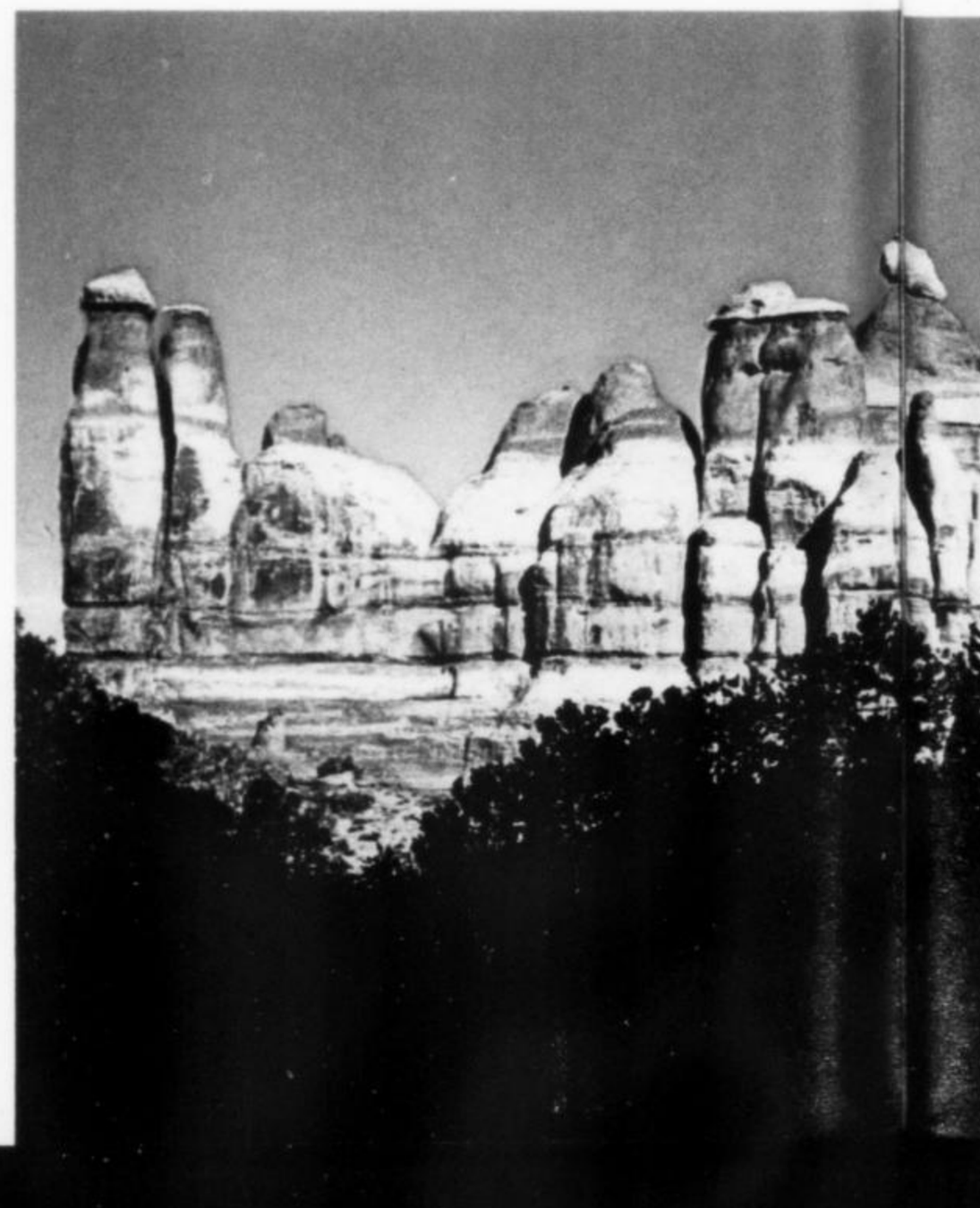
What Can You See In A Canyon?

1.

Everybody sees something different in the age-old, weather-carved rock of Canyonlands National Park. It was established only two and one half years ago, but already some of its wonders may be explored by boat or Jeep from the towns of Green River and Moab, Utah. What do these nature-carved statues look like to you—dinosaurs, castles, giants, people or what? At a Nature Club meeting you might see who can find the most things. Write to Ranger Rick about it. List the pictures by number and tell what you see in each. Send your list to him at P.O. Box 2299, Phila., Pa. 19103. Please be sure to give your name, age and address. *The End*



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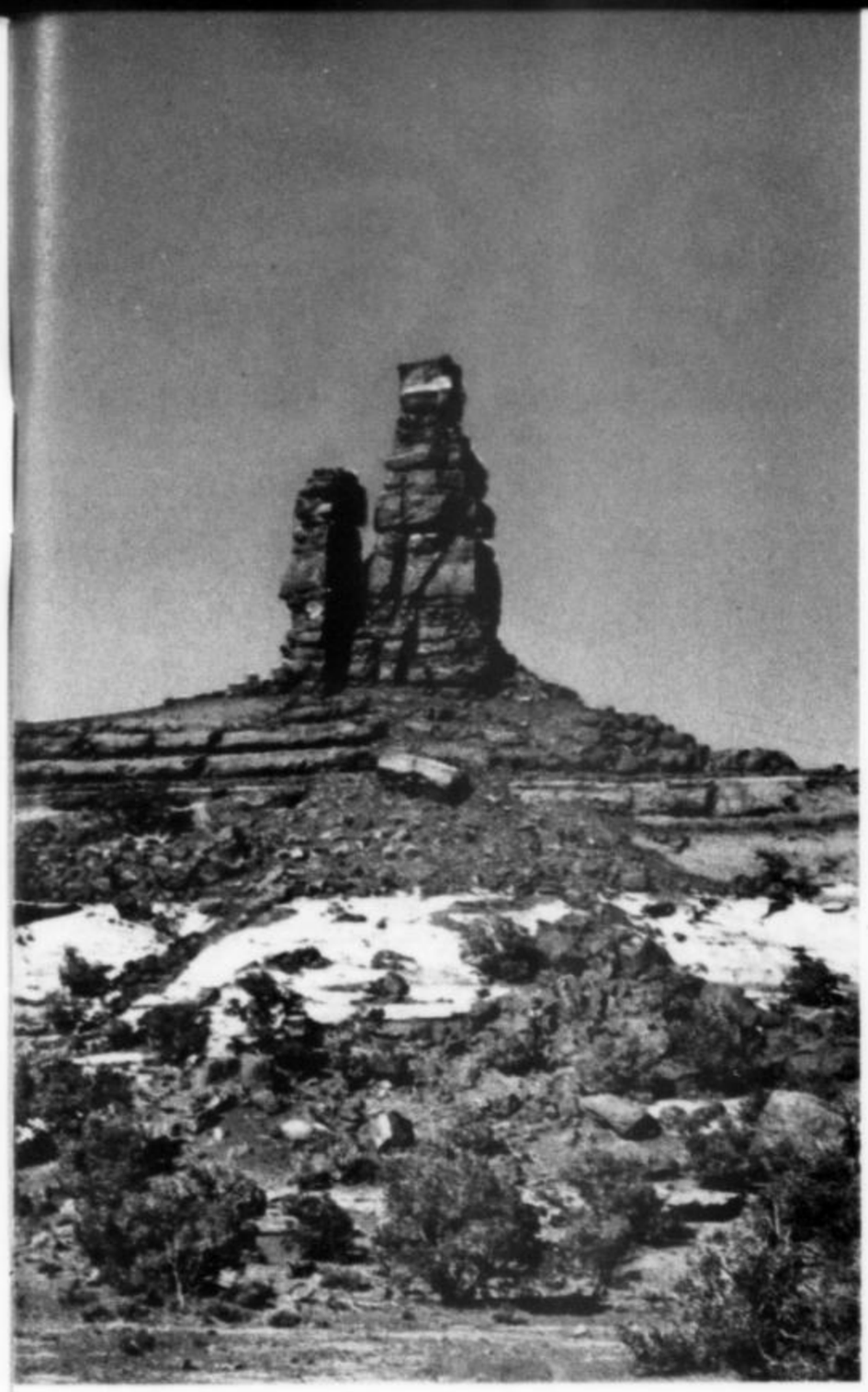

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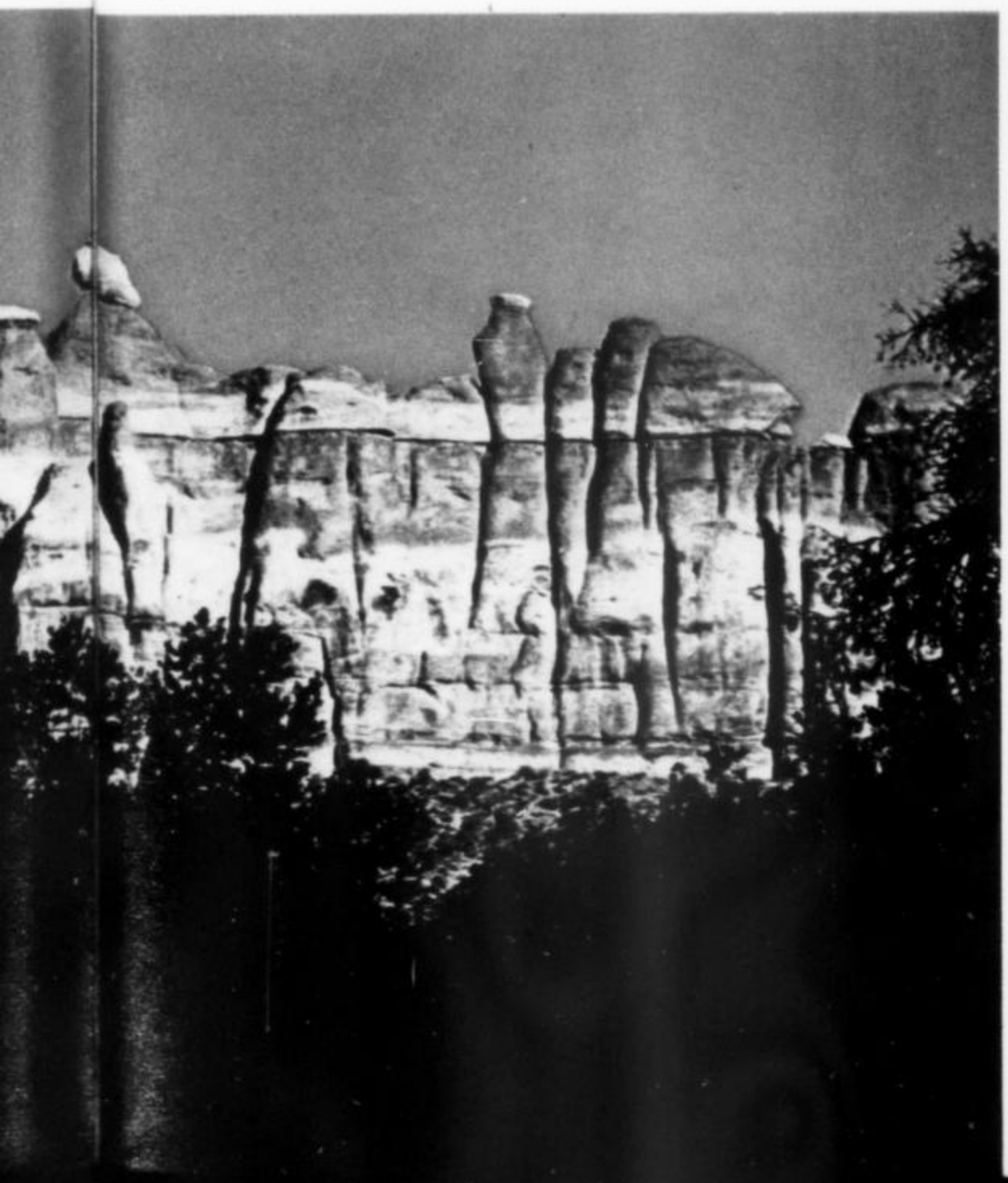

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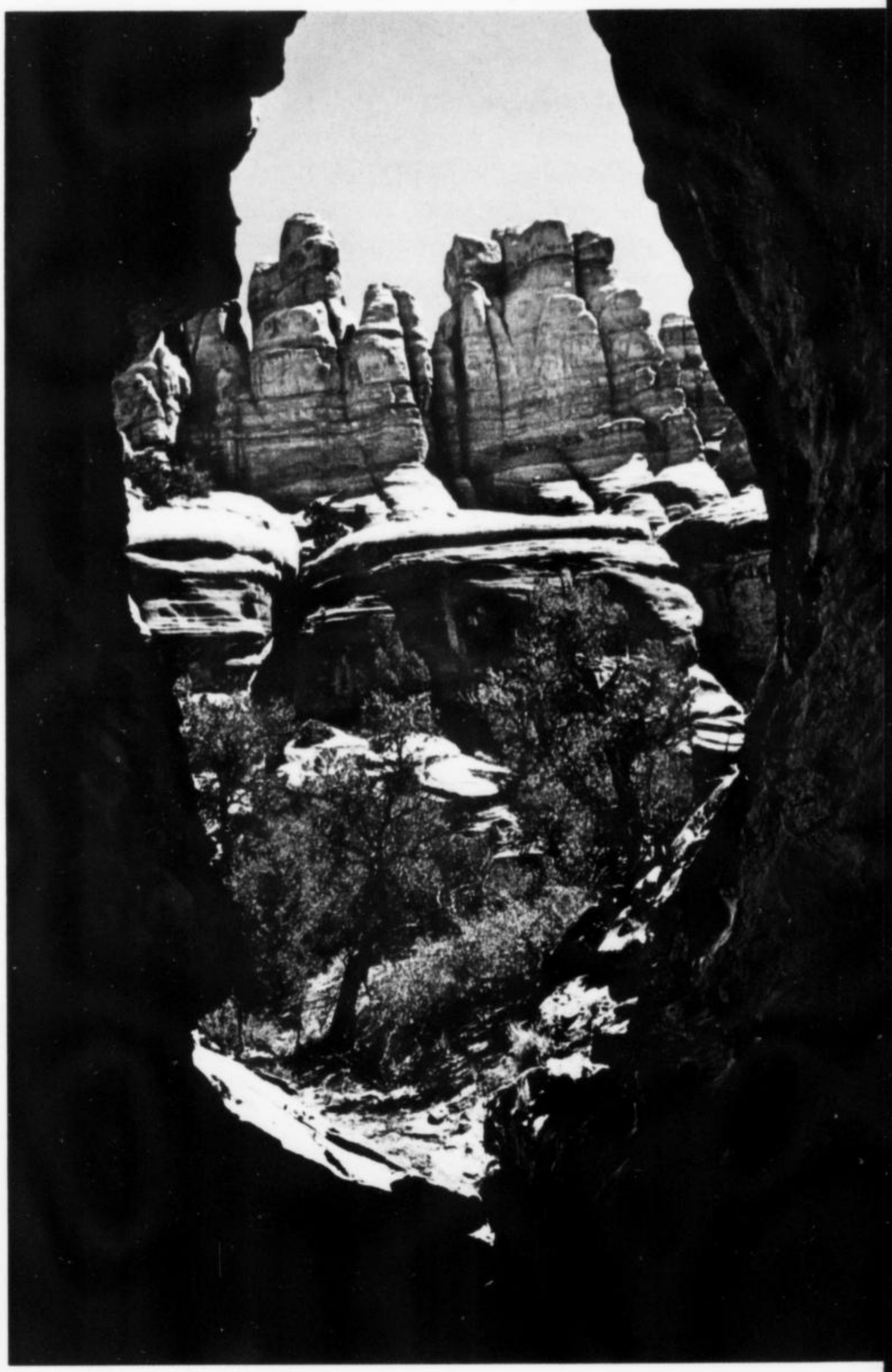
Photos by M. Woodbridge Williams, National Park Service



4.

5

how sluggish is a slug?

Story and photographs by Peggy and Norman Fisher

A slug is not very sluggish when he finds something tasty to eat. This hungry fellow is a cousin of the snail on the front cover. They are both *gastropods* (gas-tro-pods), a name taken from two Greek words meaning "stomach" and "foot." This name is used because snails and slugs walk on their stomachs!

The difference is that snails carry their shell houses on their backs, and slugs stopped using their houses long ago. Their shells got smaller and now you can find only a small piece of shell under the back skin of some slugs.

A slug can't sniff, but his sense of smell does help him to find food. His eyes are at the ends of two dark stalks on top of his head. If you touch them he will pull them into his head.

Look for slugs in damp places in the woods, or if you live in town you will be likely to find one in a damp cellar. Follow the trail of slimy mucus they leave as they crawl along. This mucus helps to keep them from drying out.

When you find a moving slug, you can measure how fast he moves. Make a mark where he is now. Wait one minute and mark the place he has reached. Measure the distance between the two marks. That is how far the slug has moved in one minute. Can you figure out his speed in inches per minute?

Usually a slug's trail isn't straight. How would you measure a crooked trail? One way is to lay a piece of string along the trail, then cut the string at the other end and measure it. Now you can tell just how sluggish a slug really is. *The End*

M'm-m-m. The slug presses his open mouth down on a mushroom. If he had a human face, you would see a smile on it. The mushroom is soft and a lot of it goes into his mouth. You ought not to think a mushroom is safe for people to eat just because a slug can eat one. Some slugs can safely eat mushrooms which are deadly poisonous to humans.

Slurp! He squeezes his mouth shut. The piece of mushroom slides down his throat. Some kinds of mushrooms must taste like candy to him because he takes bite after bite as quickly as you would eat a chocolate bar. But most of the time he eats green leaves in the garden. If these are not handy he will try to eat a piece of soft wood.

PICKET PIN HOTEL

by Vera Foss Bradshaw

Of all the little animals in the world, the Columbian ground squirrel is one of the liveliest and friendliest. He is nicknamed "picket pin" because he sits as stiff and straight as a stake in the ground. You are apt to see him around rock ledges any place in the West, but the easiest and best places to find him are on a visit to one of our western national parks, especially Glacier National Park in Montana.

Here, in a steep rocky bank across from Many Glacier Hotel, the picket pins have built many underground rooms and so many live in them that you might call it a "Picket Pin Hotel." Actually it is the burrow or home of a big squirrel colony.

Please turn the page

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Picket pin burrows are about three feet underground (the length of your mother's yardstick). There are special round, grass-lined sleeping rooms where the picket pins nap through the winter. There are nurseries for baby picket pins and even refrigerator-like rooms where seeds and bulbs are stored for later dining.

The ground squirrels dig miles of tunnels, which they use not only to reach their bedrooms, but also to escape from their enemies. The picket pin is a good engineer and builds a cozy and safe home. Each makes his own room different from the others. Sometimes they dig so many tunnels and so many rooms that they cause landslides.

The burrows have several carefully hidden entrances. A picket pin tries so hard to keep his tunnels a secret from you that when he first comes out in the spring he remembers to use a different tunnel from the one he used in the fall.

When some people see a picket pin, they think it is a marmot or a woodchuck. But you can tell it is a Columbian ground squirrel or picket pin by the erect way he sits and by his soft fur coat of brown, speckled with little white dots. His tail is long and slender and never stands up. He has a snoopy little nose, brown eyes that sparkle like beads, and tiny ears. He weighs from ¾ to 2 pounds and may be from 9 inches to 15 inches long.

This little squirrel likes to eat just as hungry boys and girls do. The difference is that he cannot eat whenever he wants to. He must eat enough food during the summer months to last him through his long winter sleep, sometimes as long as seven or eight months. That's almost a school year! During this time his heart beats so slowly you can hardly feel it.

Although he eats a lot, he seldom takes a drink of water. Actually, during his whole life he need never take a drink. Can you figure out why? It is because the plants he eats have enough water in them to supply his needs.

When baby picket pins are born in the nursery room, there are usually eight in each family. They are pink and as tiny as baby mice, weighing only about one fourth of an ounce. They are born blind, but from the very beginning they can chirp as their mother does. They do not stay blind or tiny long; they grow so fast that within six weeks they are ready to start building rooms of their own.

After ninety days they are equal to teenagers in our human world; and when they are two years old in their world, they are as old as your mother and dad.

Picket pins do not like gloomy or rainy weather, so on cloudy days they stay underground in their rooms. But let the sun shine and they are out chirping and scampering about the rocks as if playing some kind of happy game with their fellow picket pins.

Do not be disappointed if a picket pin suddenly darts down one of his tunnels when he discovers you are watching him. Just stand or sit perfectly still for a few minutes and he will come peeking out of the rocks to take a look at you. *The End*

Photo by Henry E. Bradshaw

BEACH COMBING COLLECTIONS

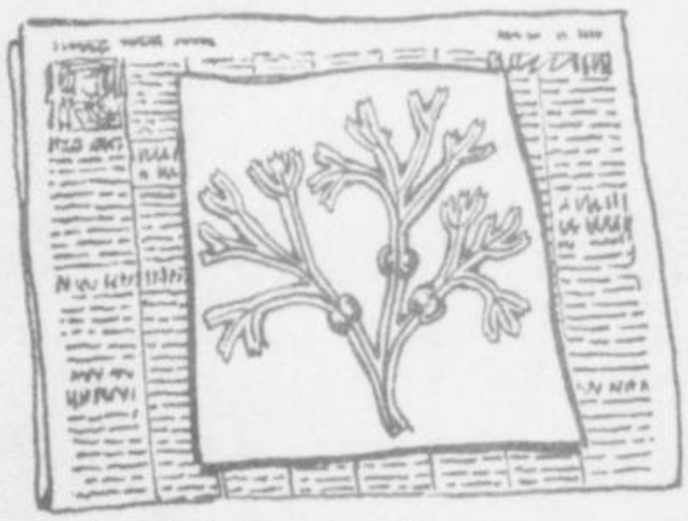
by Peggie Geiszel

If you vacation at a seashore or near a lake this summer you may find many treasures if you look carefully. You may wish to collect shells, seaweed or driftwood which you can use to make interesting displays.

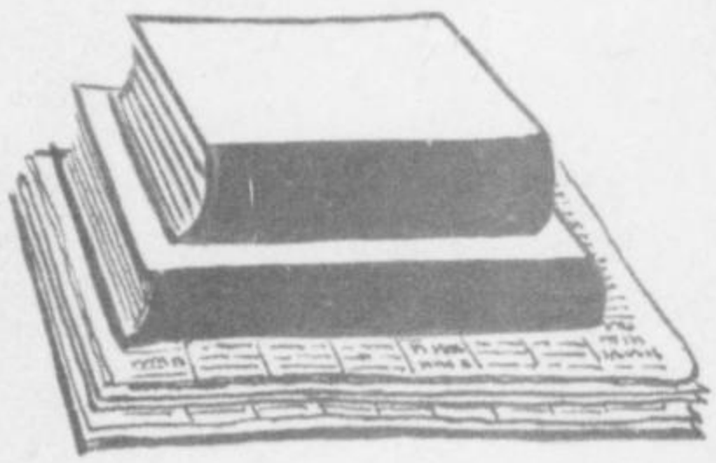
Seaweed is very beautiful when spread out and dried. Gather some in a bucket of seawater. Put it in a sink or dishpan full of water at home so it will float and spread out.

Then slide a piece of stiff paper into the water under the plant and lift it out carefully so that it will keep its floating form.

Lay the wet paper and plant flat on newspaper and then place several newspaper sheets on top.



Add layers of newspaper to each layer of plant material you have to press. Then weight the pile down with books or bricks until everything has dried.



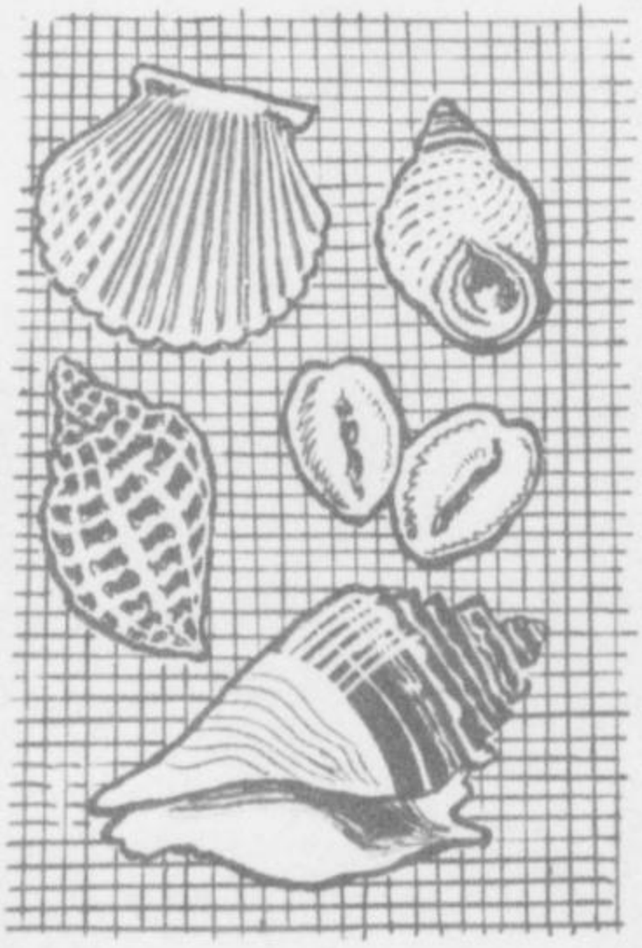
The dried seaweed may be mounted under cellophane or placed under a sheet of glass to make a picture. The pieces are also lovely when dried and mounted on wood or used under glass on a coffee table or a gift tray.

When you are beachcombing you will notice that many things collect all along the shoreline. Look around rocks, ledges or crevices after a storm has stirred up the bottom of the lake or ocean.

Look for interesting shells and small pieces of driftwood which may be combined to make a wall plaque for your room. Driftwood is usually a soft grayish color which needs no finish except cleaning off the sand. Arrange your best shells as desired then attach them to the wood with a spot of glue. When dry, the plaque may be hung on the wall or displayed on a shelf.

If you prefer to display your collection without having to use glue on any of your treasures you can mount them on screening. With scissors cut a piece of copper wire screening to the size you need. Then mount your shells on it with fine thread.

With a needle carry the thread from the back of the screen around the front of the shell and back again. Tie a strong knot. The thread will not be seen from a little distance so it won't spoil your display.



The End

The World of Nature in Space

by Lloyd E. Jones, Jr.

National Aeronautics and Space Administration

In the March issue of *Ranger Rick* we talked of how much we could learn about our earth by going out into space and looking back at it. We saw how we can study our oceans, rivers and forests in this way. Going into space is also a wonderful way to study our planet's weather.

Has your family ever planned a picnic or a camping trip, only to have the rain pour down on the day you picked?

Have you ever wished you could know exactly what the weather is going to be like next week or next month? Well, maybe *you* haven't, but think of the rancher or farmer who has thousands of dollars' worth of hay ruined by an unexpected storm or who has lost

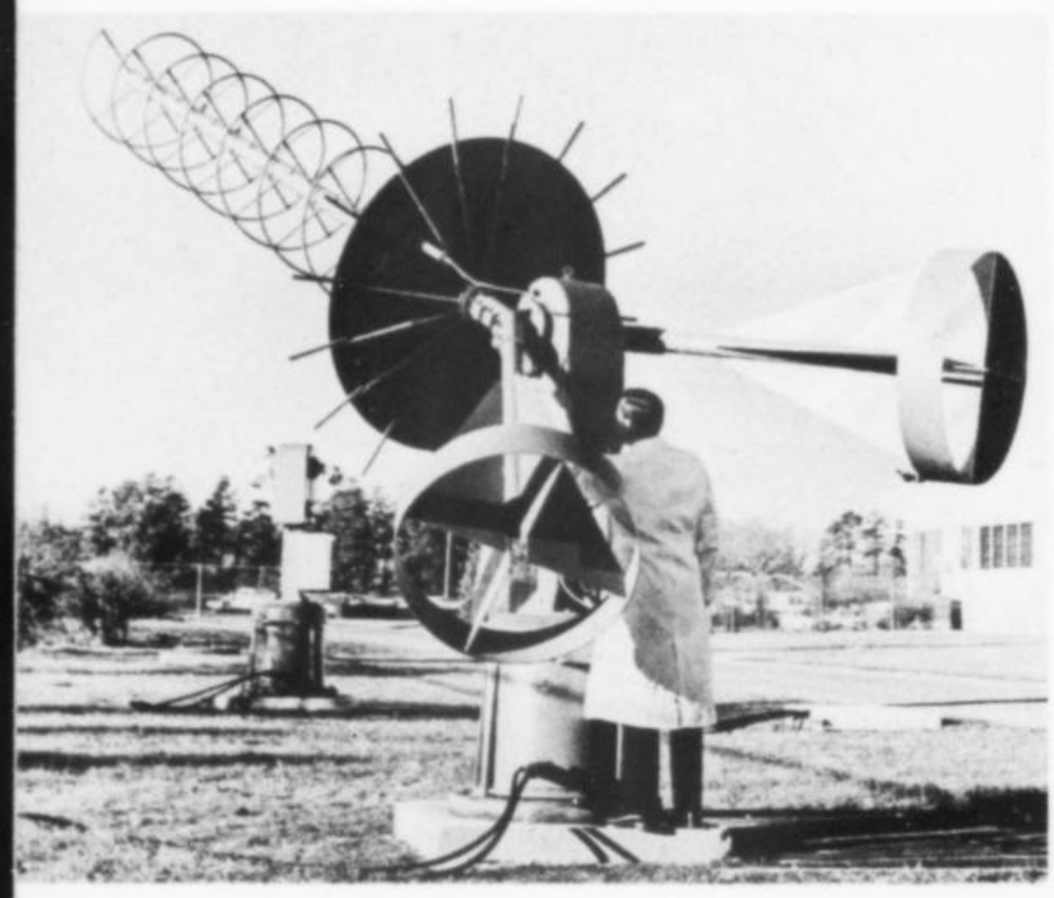


Photo 1. Pictured at right is a model of the Tiros weather satellite. Photo 2 above shows the ground station antenna.

hundreds of animals in a sudden blizzard.

Think of the airlines. Sometimes in the winter dozens of big jet airliners are trapped by sudden storms in one part of the country while hundreds of passengers wait in another.

All this costs money and space research scientists have set out to do something about it.

Looking at the clouds from far above the earth helps them to predict what the weather will be like several days ahead. They can give warning of storms and cold and warm fronts.

They hope someday to be able to do this even two weeks ahead. It would save about six billion dollars a year. Almost everyone—farmers, airlines, truckers, shippers, those managing our rivers and forests—depends on the weather.

Seven years ago the first U. S. spacecraft was put in orbit to take pictures of the cloud patterns around the earth. This satellite, called *Tiros*, is shaped like a drum (photo 1). It weighs about as much as a kitchen stove. Inside are two small television cameras just a little bigger than flashlights. In the drawing you can see the lenses poking through the bottom of the satellite.

Tiros' job is to take television pictures of the cloud patterns above the earth's surface and then send them back over the antennas you see on the bottom of the spacecraft. These pictures are received by a special ground station (photo 2). Then they are printed and given to the weathermen to study. From the pictures the weathermen can tell where the storms and the cold and warm fronts are and how the

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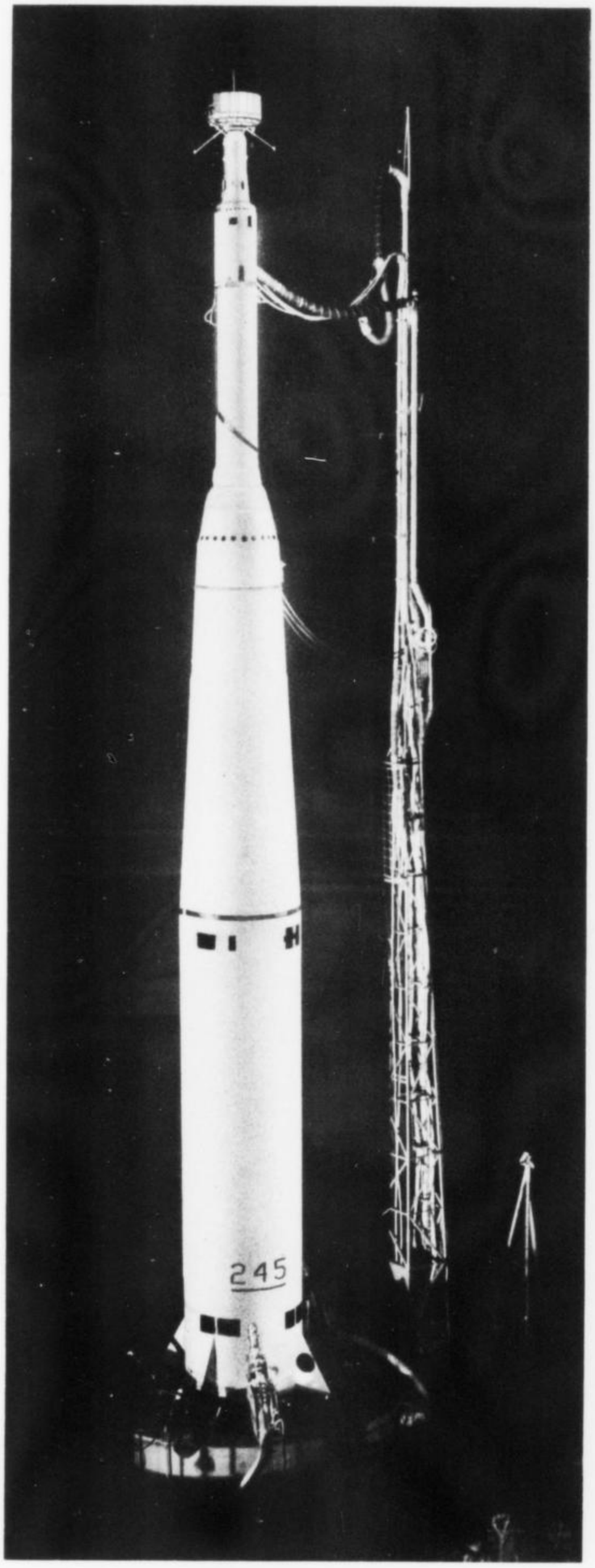


Photo 3. Tiros is the tiny craft on top of the rocket. It takes this huge rocket to launch it.

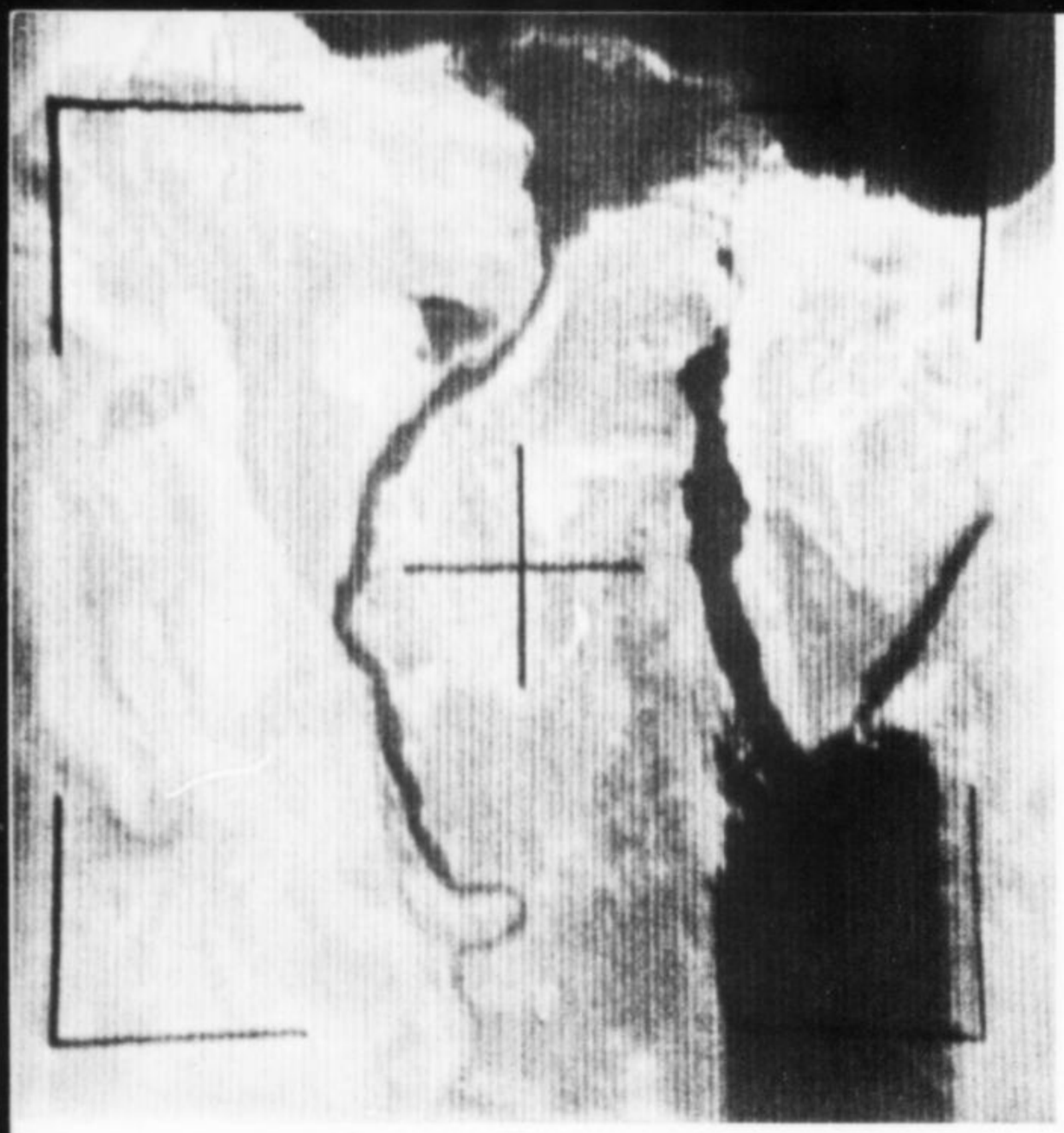
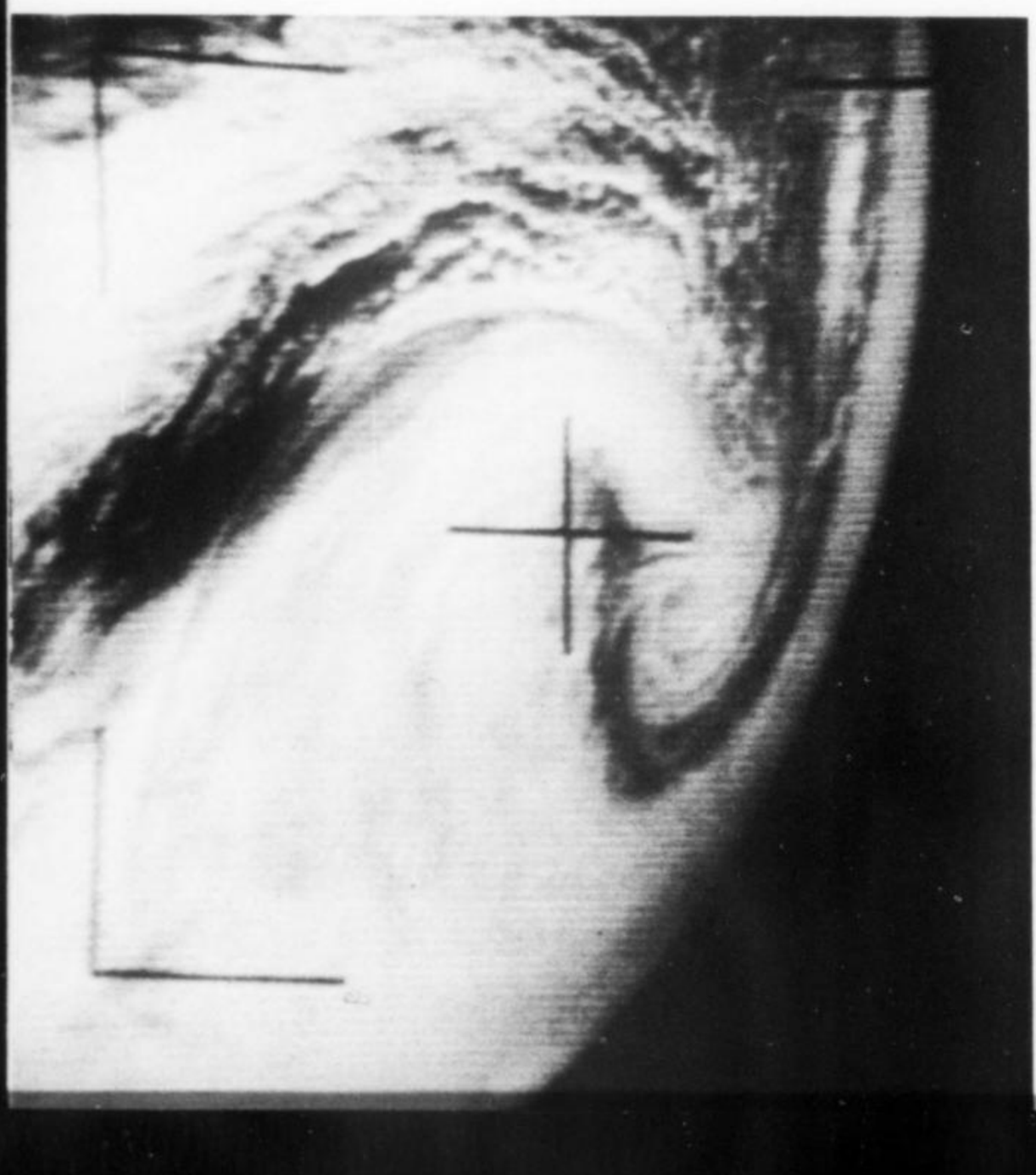


Photo 4. This photo was taken over Egypt. Can you locate the Nile River Valley and the Red Sea? How does the photo compare with your map?

Photo 5. Tiros has located hundreds of large storms. This is the eye of a 2,000-mile-wide tropical storm system near the Australian coast.



Keeping An Eye On The Weather (continued)

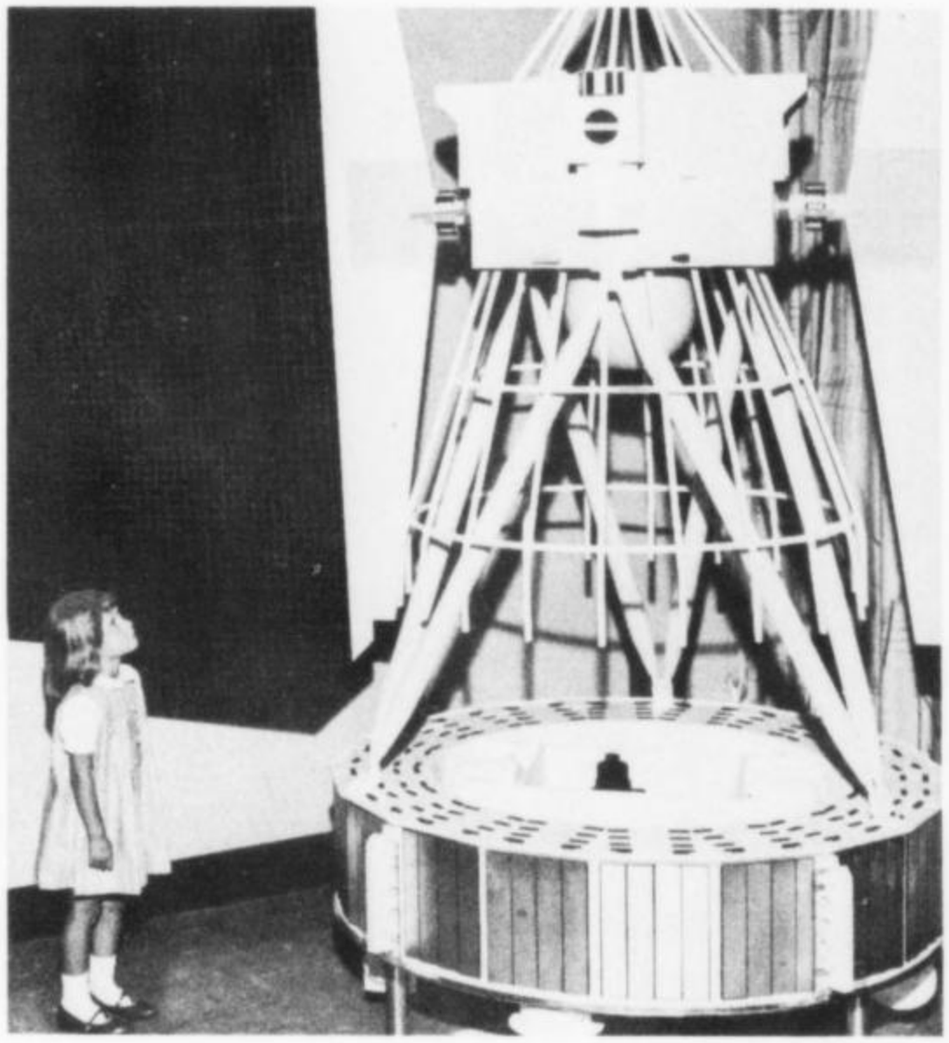
big weather systems are moving.

Sometimes the pictures show no clouds (photo 4), but this is useful information too. Sometimes the weather fronts are easy to see (photo 6). Sometimes they even find big tropical storms. They are called hurricanes in the Atlantic and typhoons in the Pacific (photo 5). This is nature really on the rampage.

Twelve satellites have been launched into space since the first Tiros in 1960. Each one of them lasts for about a year. They are in orbits about 450 miles high and circle the earth every ninety minutes. In seven years Tiros has taken over 600,000 useful pictures of the world's weather. That's almost one picture every

Photo 6. The clouds at the bottom of the photo indicate the weather front which marks the line between air masses of different temperatures. Can you find Long Island and Cape Cod?

Photo 7. Nimbus is America's second type of weather satellite now being developed.



Photos by National Aeronautics and Space Administration

six minutes! This is more information about the weather than man has had in all the thousands of years before.

Tiros has given warning of over 2000 storms. No ship, town or airplane should ever have to be surprised by a big storm or sudden weather change again.

Tiros is a great success, but we are not completely satisfied. We want more pictures at night by using the heat waves from the earth's surface instead of light. We want to put more weather experiments into a satellite. This is why we are developing *Nimbus* (photo 7). You can see that Nimbus is much bigger than Tiros. It flies a little higher and it weighs almost four times as much. Nimbus pictures are also useful to the weatherman and can be taken by day or night.

In the last three years two Nimbus spacecrafts have been orbited. Both Nimbus and Tiros are made so that anyone in any country on earth can build a receiver and get their pictures. Weather agencies in almost forty countries are using the satellites now.

As we learn more about our weather, we will be better able to manage our natural gifts of soil, water, wildlife and minerals. Someday we may be able to control the weather so even the desert and the jungle can bloom and produce food for man.

It will certainly be easier to plan picnics!

The End

by Vinson Brown

INSECT KING OF THE AIR

Did you read about the Underwater Tiger in your May issue of *Ranger Rick*? Then you know that this ugly water nymph will someday break out of its outer shell and become a beautiful dragonfly. You may catch sight of it in the first light of a summer dawn as it crawls out of a pond onto the stem of a water plant to dry in the sun. Little by little the ugly outer skeleton splits apart down its back and out squirms a dragonfly.

It is a limp-looking thing at first with its damp and folded wings. This is a time of great danger for the new dragonfly because a bird may be flying over the pond looking for just such a helpless creature to snap up in its beak. This helps us to understand why most dragonflies are found breaking out of their nymphal skins in the nighttime or in the early morning when few birds are flying.

At last comes that wonderful moment when the dragonfly gets the urge to fly. Its transparent wings shimmer with life. It has only to lift its wings and instantly it is air-borne, no longer easy prey for a bird. When a bird dives toward the dragonfly, it flutters its wings and dodges sideways so quickly that the bird snaps at empty air.

Up and up goes the dragonfly into the blue sky where it reigns as "insect king of the air." This insect is so fast that only the swift pigeon hawk is likely to overtake it in flight. Its big eyes almost cover its whole head, helping it to see the pigeon hawk in time to escape.

Now it zooms down toward the pond like a jet fighter plane. What is it chasing?

Please turn the page

Photo by Robert Dunne

Photo by Hermann Eisenbeiss, Photo Researchers, Inc.

Gradually the fluid flows into the wings forcing them to open so they can dry. (Right) The dragonfly can't walk even though it has six legs; with them it clings to plants and catches insects in midair.

Photo by Hermann Eisenbeiss, Photo Researchers, Inc.

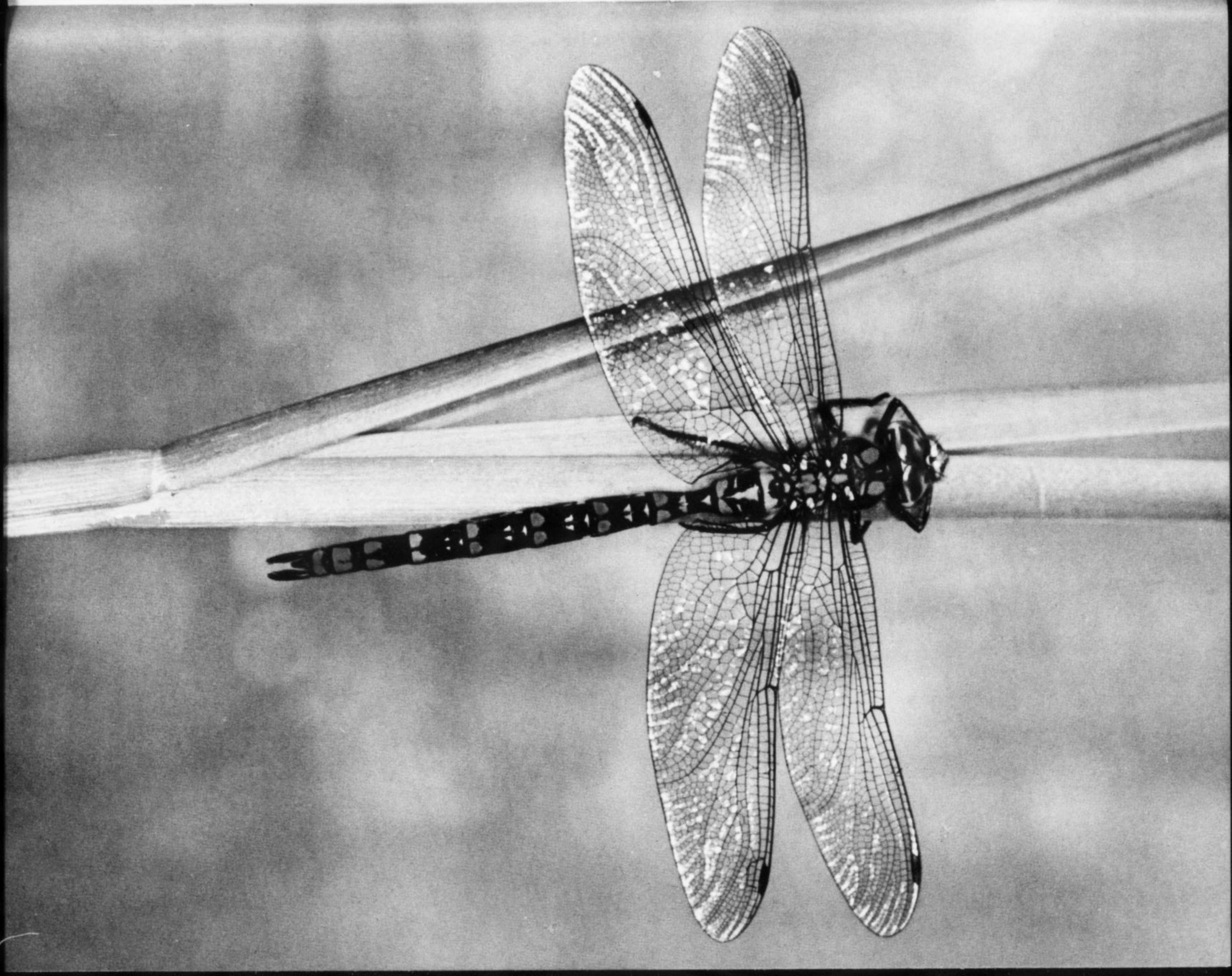


Photo by Russ Kinne,
Photo Researchers, Inc.

Under a magnifying glass we can see how the dragonfly's big eyes almost cover its whole head. Its eyes contain more than 30,000 tiny lenses.

It is another, smaller dragonfly called a damselfly. Swish! Swish! It rushes through the cattail stems, zigzagging around them far more easily than you could run among the trees of a forest. Then up and up into the air it goes, its wings blurring into beautiful waves of color. In another instant the dragonfly zips down and seizes the smaller damselfly in midair. Bravely this little one turns its head and their jaws clash together like swords striking in battle.

But one day it finds a dragonfly it does not want to eat or hurt. It is a beautiful female dragonfly. She becomes his mate and they fly off together. Soon it is time for her to lay eggs. She flies low over the water until she finds a plant which will serve her purpose. Then she dips her tail under the water surface and either drops her eggs in the water or plants them in the stem of a water plant. They will be protected there until they hatch. Thus the dragonfly nymphs begin life down in the dark waters of the pond. Someday they, too, will turn into kings of the air and fly high in the blue sky and chase mosquitoes and flies among the cattails and water lilies. *The End*

delightful dolphins

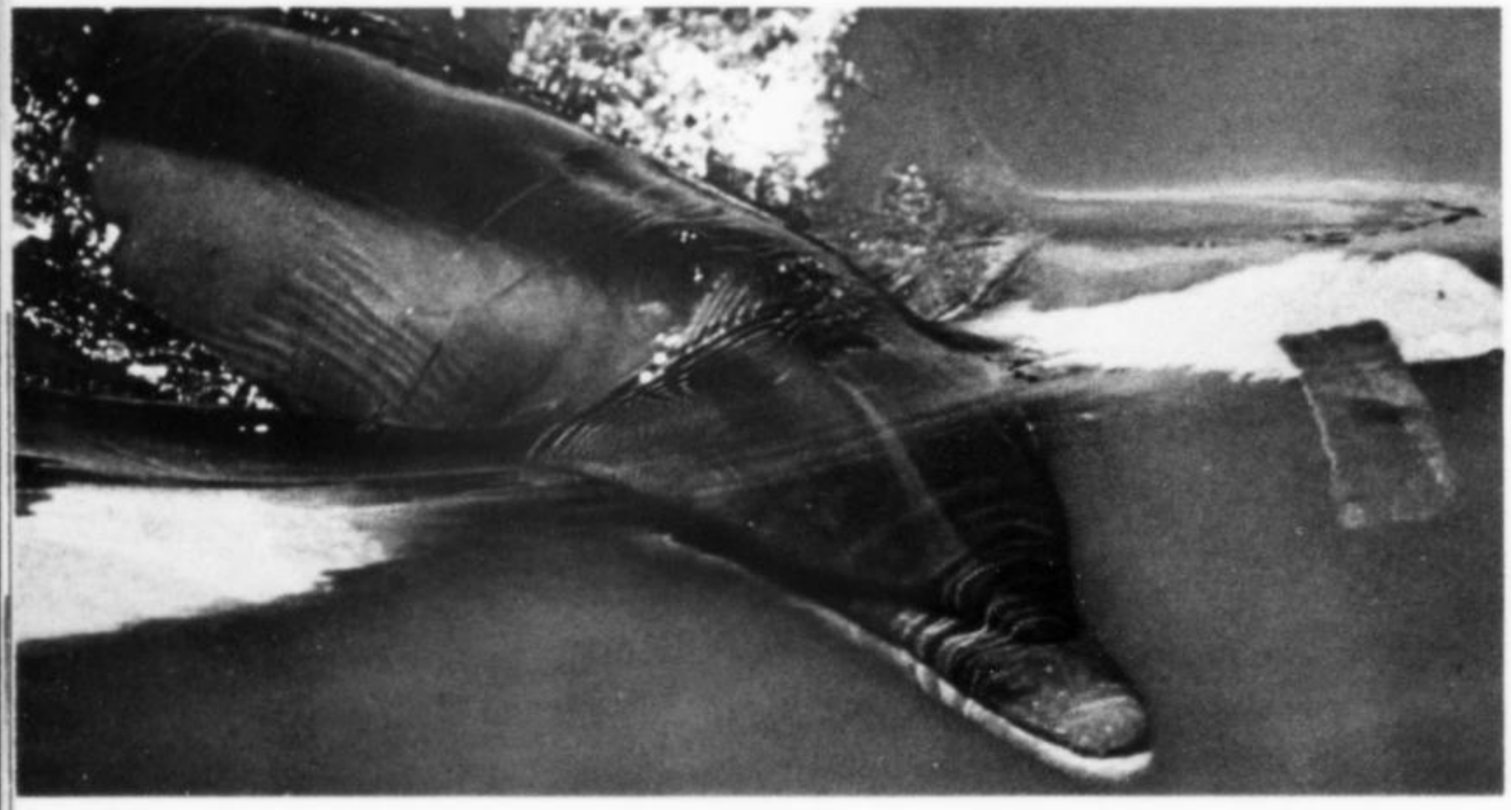
by Margaret Durrance

A few years ago Milton Santini was a fisherman. Now he makes his living by catching dolphins. It all began several years ago when Milt and his brother, natives of Florida, were fishing off the Florida Keys. As they were heading home they noticed a dolphin following them. The dolphin frolicked and splashed around their boat. Milt remarked to his brother, "Why, he's so friendly—I bet I can catch him with my hands." So Milt dove overboard to see what he could do. Before very long he brought the dolphin aboard. Now Milt was eager to get home to show his wife, Ginny, their unusual new pet. They bought wire fencing and made a sea pool in the inlet next to their home. At the time they didn't know that this would lead them into a new and unusual career. To find out more about these remarkable and friendly animals, read about the Santinis' true adventure on the following pages.

Ginny helped Milt in his new work. Each time they went hunting, she held the net beside the boat and slowly pulled it in while Milt was in the water talking gently to the dolphin and coaxing it to come aboard.

Once the dolphin was aboard, Ginny put a garment on it. She had made it to protect the dolphin from the hot sun until it was safe in its new sea pool. There it would be fed and protected from dangers of the sea.

The dolphins enjoyed playing and being near people in their new home. Sometimes a dolphin would jump into the ocean, but it always returned to its friends at the Santinis' sea pool. Here is a dolphin shaking "hands" with Milt's trainer.



Each day Milt and Ginny discovered more about the intelligent and waggish ways of their dolphins. As we can see in this picture dolphins are great pretenders. Here one pretends to be an airplane.

It was Ginny who first started swimming with their favorite dolphin named Mitzi. By holding onto Mitzi's dorsal fin, she could go for a thrilling ride in the salty water. A movie company heard about Mitzi and decided to use her in a movie called "Flipper."

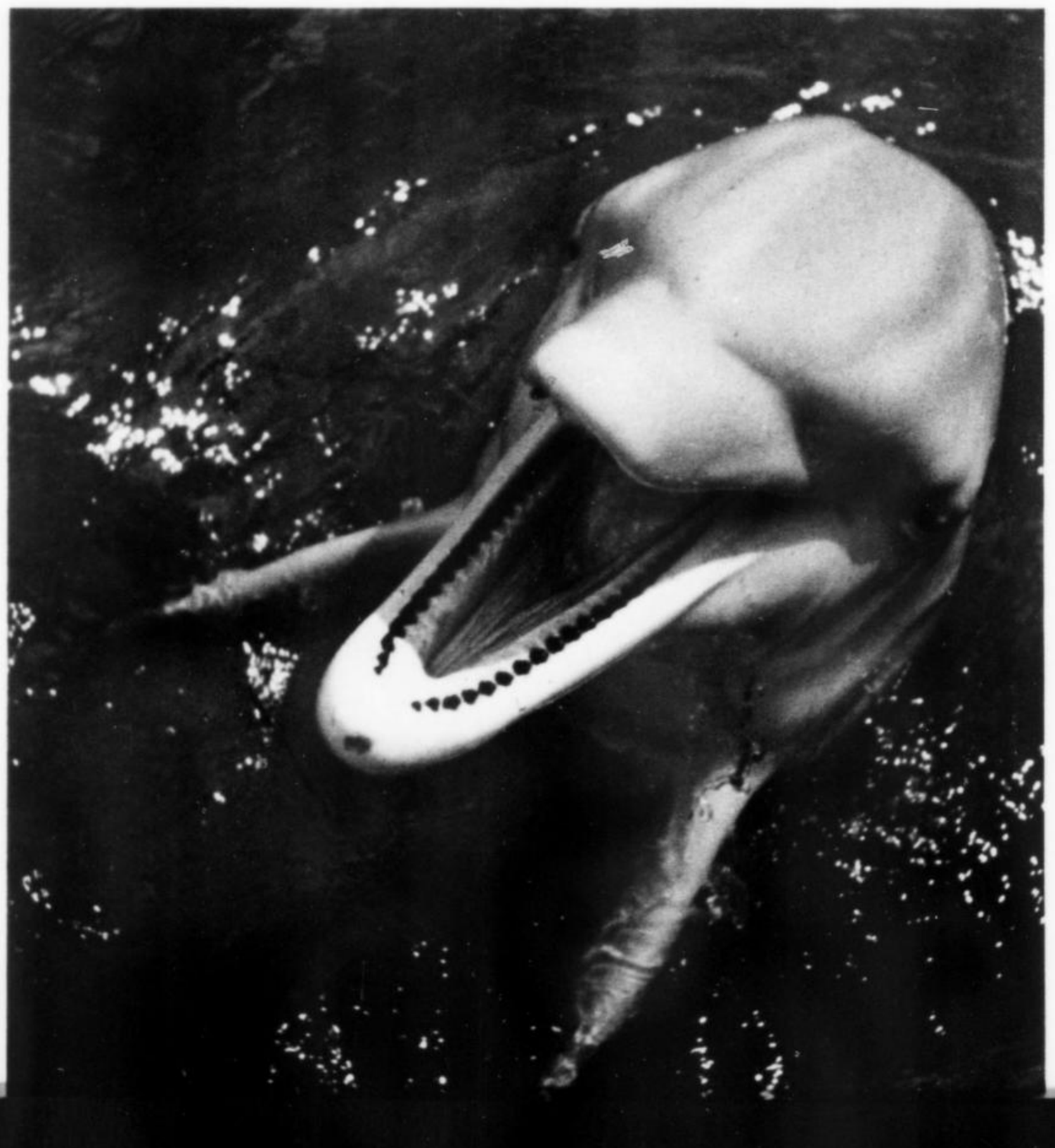
Word traveled to neighboring towns. Soon Milt was getting letters and phone calls from seaquariums, zoos and marinelands. Scientists wanted dolphins so they could learn more about their behavior. Here is a dolphin ringing a bell.

Mealtime became a kind of training game. For each effort a dolphin made in learning a new trick, a fish dinner was its reward. Now people were coming every day at mealtime to watch the funny antics of the dolphins. So Milt and Ginny decided to have a dolphin show and charge admission. The pelicans in the picture at the right seem to be interested in the fun too. Or could it be the fish?

Photos by Margaret Durrance Photo Researchers, Inc.

Dolphins love children and here a small group gets a dolphin-drawn boatride. Except for their huge size and need for salt water, dolphins would make ideal pets. They are playful, gentle, intelligent and affectionate toward people. If the dolphin's "smile" in the picture means anything, it may have quite a sense of humor too!

The End



Note to Rangers: The bottle-nosed dolphin is pictured in this story. It is very much like a porpoise. In fact, many people call them porpoises. This is not surprising since they look so much alike. But the one sure way to tell them apart is by their teeth. Porpoises have spade-shaped teeth and dolphins have cone-shaped teeth.

RANGER RICK

Photo by Toni Angermayer

House cat

Photo by Leonard Lee Rue, III

Bobcat

CAT COUSINS

If you know and love a house cat you already know a great deal about the jungle cats of Africa and Asia and the smaller wild cats of America. The air of having a secret life of their own, the flexible spines and loose skins that let them relax completely, the glowing eyes, the muscles like steel springs, the perfect balance and speed, the strong teeth and claws are things your cat and its wild cousins have in common.

Cats, whether domestic or wild, keep their fur coats clean and shiny by licking them with their tongues. If you have ever let a pet cat lick your finger you know its tongue feels very rough, like sandpaper. That is because there are little hooks on cats' tongues that point downward toward their throats. These hooks carry food and fur down the throat to the stomach. Because of this, and because cats shed hair during the entire year, your pet should be brushed often to prevent hairballs from collecting in its stomach.

All cats (except the cheetah) can draw their claws back into their velvetlike paws. Once in a while they shed their claws and grow new ones. Does your cat have the same number of claws on both its hind and front feet? Have you noticed how often it sharpens them by clawing at the rug or furniture?

Lions and tigers use their daggerlike claws to pounce on and hold down their prey. But they do their actual killing by biting with their sharp front teeth. Tigers attack more fiercely than lions. They balance on their hind feet and seize their prey with both front paws. Lions use only one paw at a time. They also have a spike of matted hair hidden in the tuft at the end of the tail. No one seems to know what purpose it serves.

Long, stiff whiskers are attached to

Please turn the page

nerves in the cats' skin. They use these sensitive whiskers to feel their way through bushes—not, as some believe, to measure a space through which they can walk.

Often we hear stories about how well cats can see in the dark. This is true because the pupils of their eyes are vertical slits rather than single, black round holes in the center of the eyes like human beings'. They close to narrow slits in the daytime but open very wide at night. In the dark, cats' eyes glow like little lanterns lighted from the inside. Actually this light comes from the outside and is reflected by special colored cells in cats' eyes. These cells are pink, gold, blue or green and reflect a different color as the light changes.

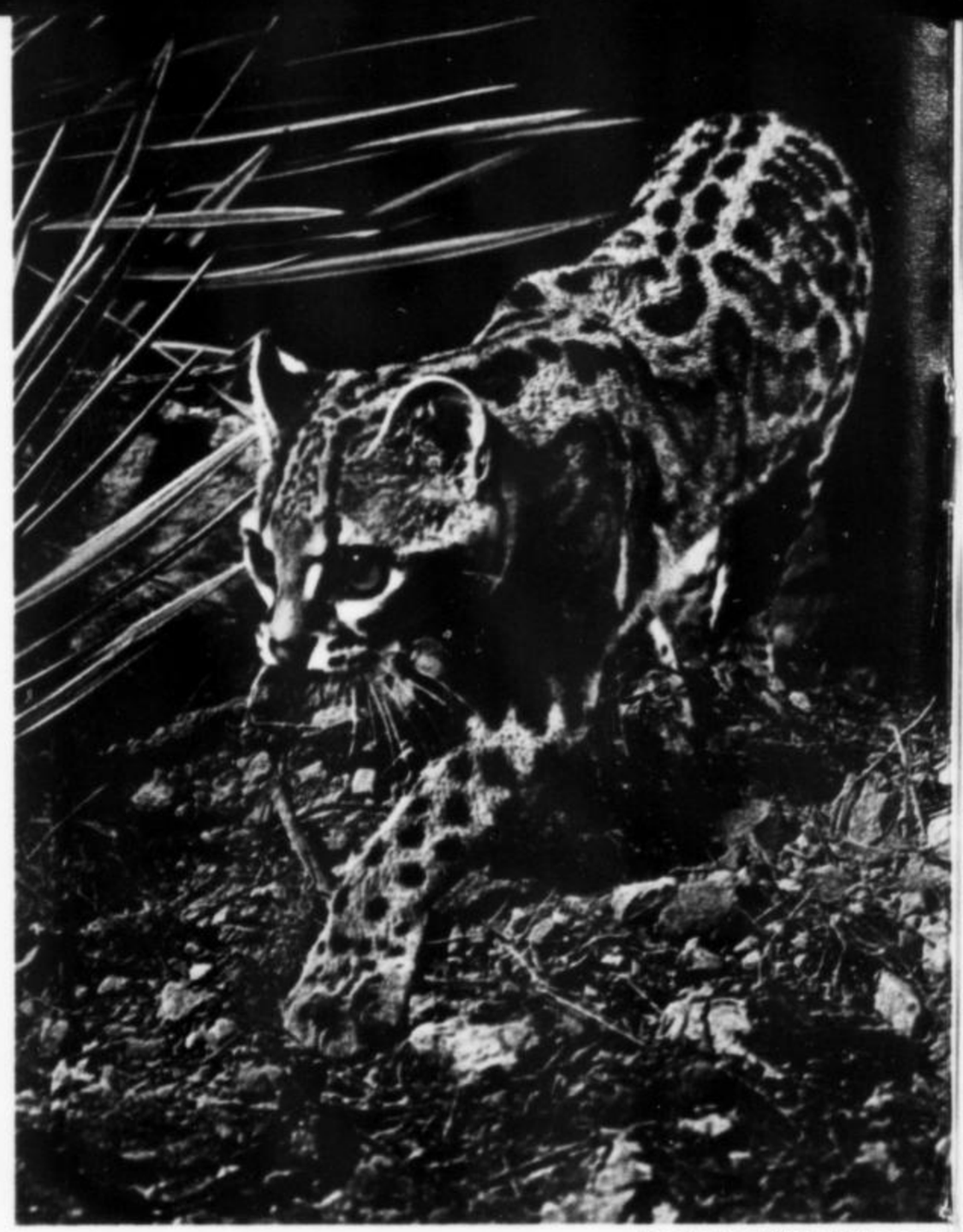
Cats talk to one another and to people by making many different sounds. While a cat naps in your lap, it purrs. To tell you it is hungry, it meows. When it is angry at another cat, it snarls and yells. It needs two sets of vocal cords to make these noises: one for purring and snarling and the other for meowing and yelling.

The faithful way your cat tends and trains her kittens is typical of the whole cat family. But her wandering mate seldom sees his many families. This is true of most tame male cats, except the Siamese—and of all wild ones, except lions.

Lions sometimes mate for life. It is common for one male lion to live with and protect a whole group of females. The mother lion is so serious about training her babies to hunt that she does not mate again until the litter is raised—usually about three years. One female will often babysit for the whole group of lions.

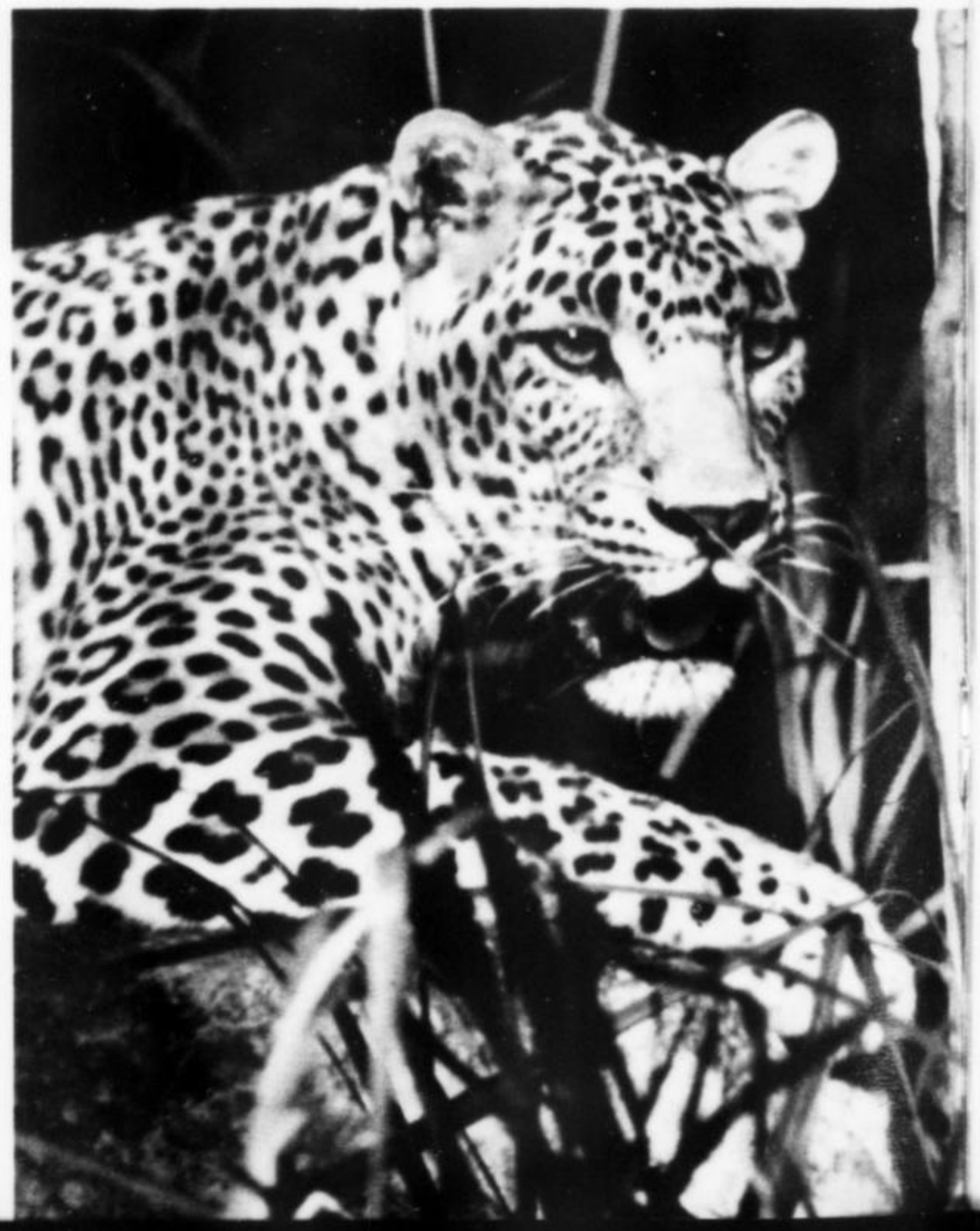
You probably admire the way your cat does pretty much as it pleases. Scientists believe this is because cats usually do not

Story continues on page 27



1. Photo by Willis Peterson

2. Photo by R. Simon



Peterson

R. Simon

3.

Photo by Joe Van Wormer

Cats of the Western Hemisphere

1. *OCELOT: Found in Texas, Arizona and south to Paraguay in South America; twice as big as a pet cat.*
2. *JAGUAR: Roams land from southwestern U.S. to Argentina; biggest American cat—body over 5 feet long.*
3. *BOBCAT or WILDCAT: Lives in western U.S., from southern Canada to Mexico; slightly larger than an ocelot.* **4.** *PUMA or MOUNTAIN LION: Roams land from northern Canada to the tip of South America, almost as big as the jaguar.*

4.

Photo by Russ Kinne at San Diego Zoo

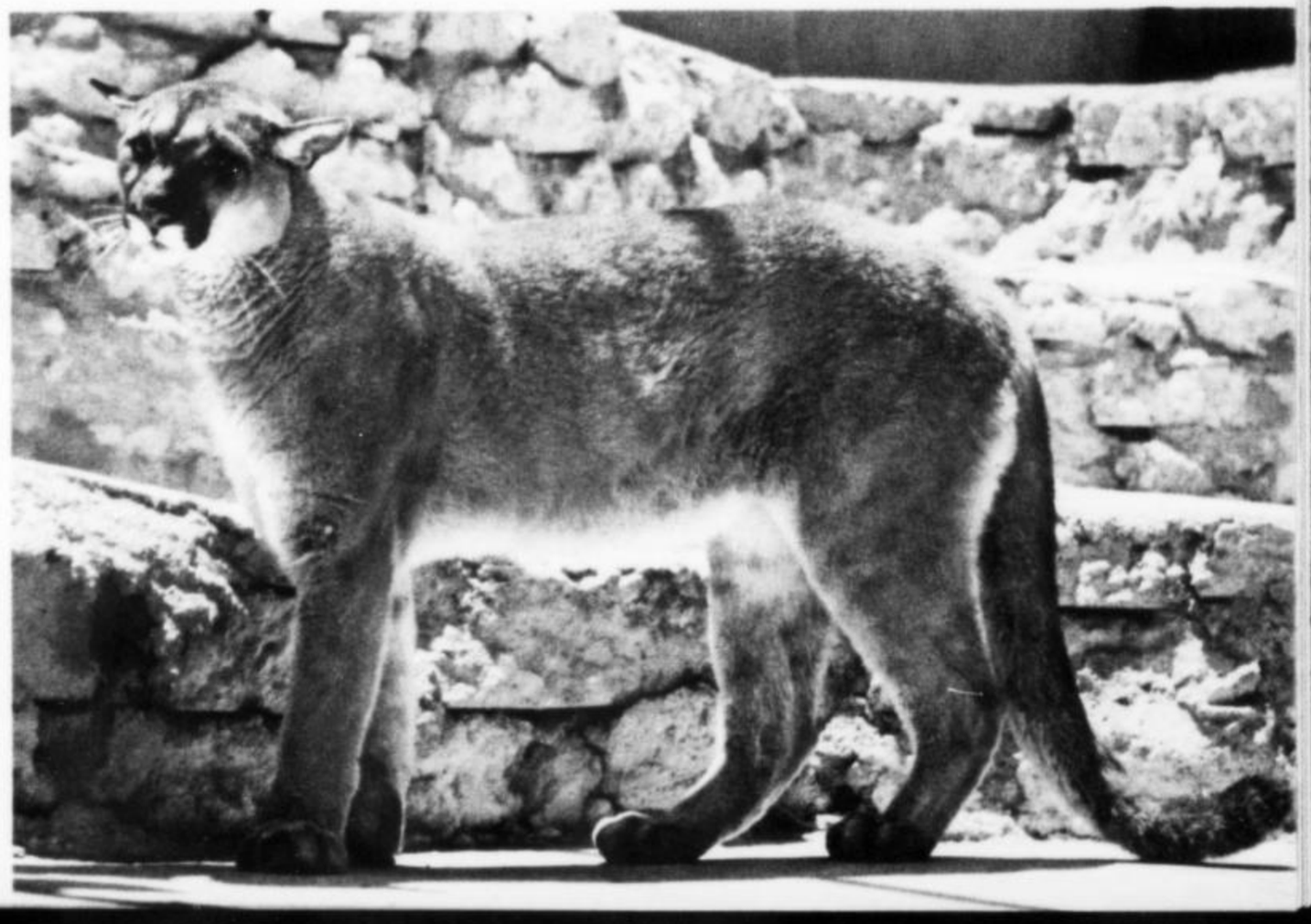


Photo by Russ Kinne at San Diego Zoo

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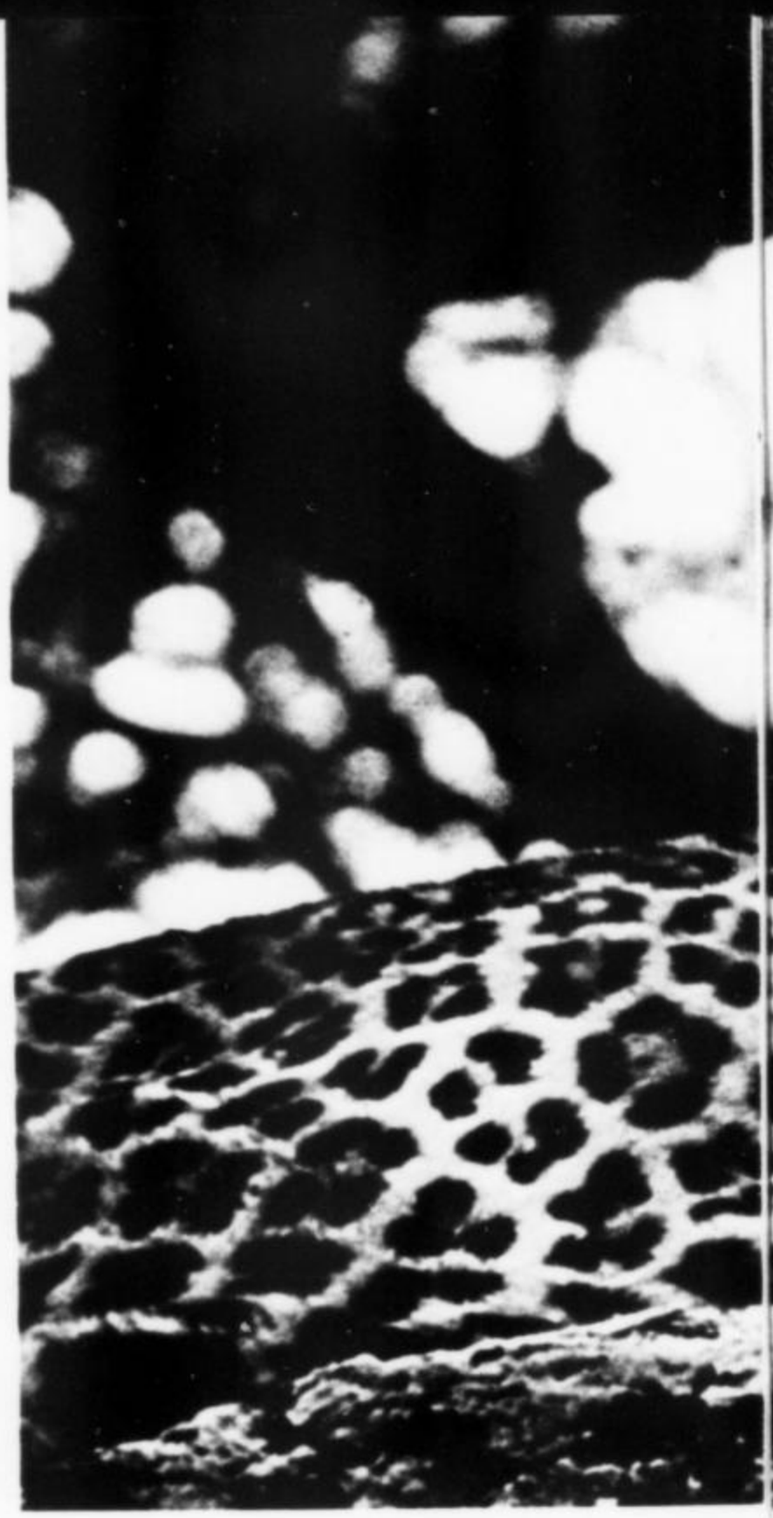


Cats of the Eastern Hemisphere

5. *TIGER: Asia, world's largest cat—5 to 9 feet long.* **6.** *CARACAL: India and Africa, 3½ feet long.* **7.** *LION: Africa, 6½ feet long.* **8.** *LEOPARD: Africa and Asia, body length 4 to 5 feet.*

6.

Photo by Toni Angermayer

Photo by G. Tomsich

8.

Photo by Toni Angermayer

6.

7.

Photo by William L. Self

live in packs, as do many members of the dog family. House cats are intelligent and have good memories but often refuse to do tricks. This seems to be a matter of pride—for when they want to they can learn to open doors and turn on water faucets. Ranger Rick would like to know some of the smart things your cat may have done.

The saying that cats have nine lives seems true because Nature has given the cat family so many things to help its members get along on their own. But house cats cannot really do this. Man, who has made pets of them through many ages, owes them proper food, dry shelter, and the light, air and exercise they need.

The End

All photos except 1. and 7. from Photo Researchers, Inc.

Ranger Rick And His Friends

Story by J. A. Brownridge

A hot summer wind blew over the prairie lands of central Canada. Little whirls of dust danced across the landscape. Most years at this time there would have been marshes and potholes filled with water. On each one would be mother ducks swimming proudly with a happy brood of baby ducks close behind. But there had been little snow on the prairies last winter and the spring rains had been very light.

Ranger Rick stood on a little hill with his friend Ollie Otter. Shading their eyes from the hot sun, they searched the countryside.

"I sure don't see any sign of our duck friends," said Ollie.

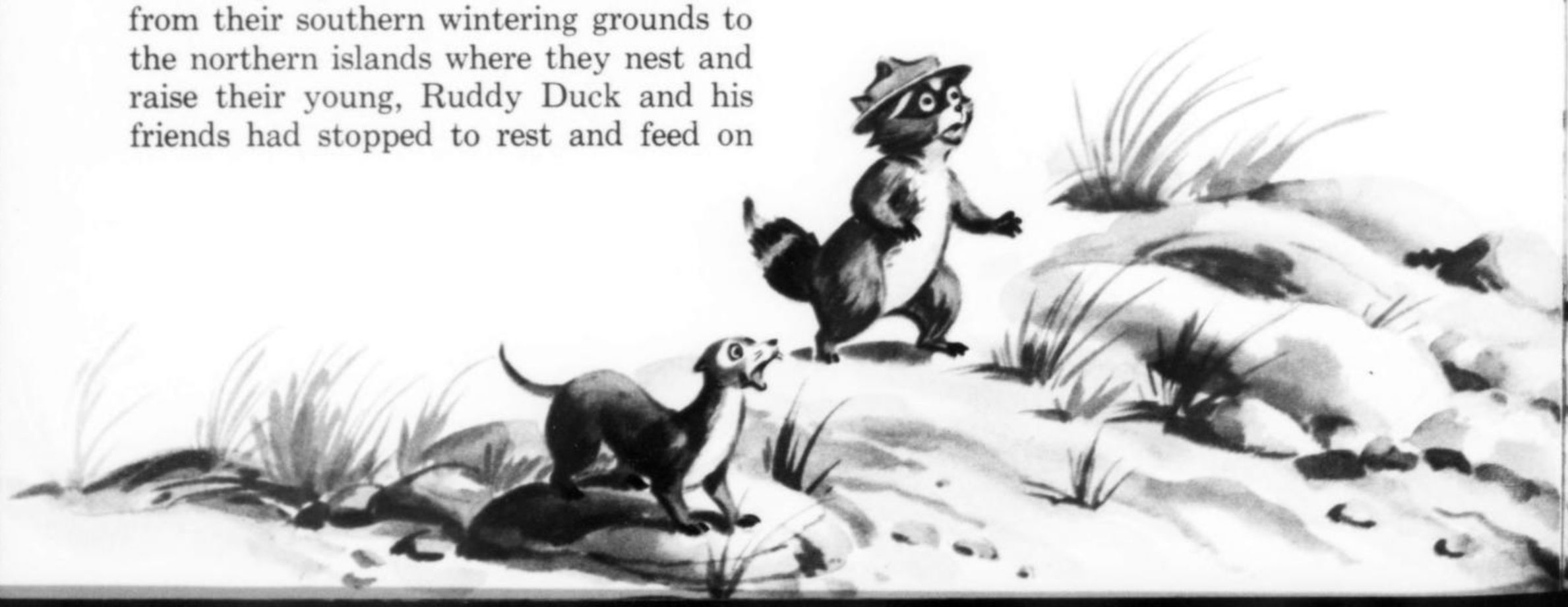
"Neither do I," replied Rick, "but this is where Ruddy Duck told us they'd be."

Last spring when the ducks were flying from their southern wintering grounds to the northern islands where they nest and raise their young, Ruddy Duck and his friends had stopped to rest and feed on Shady Pond in Deep Green Wood. They had invited Rick and Ollie to spend the summer with them in Canada.

"No use standing here," said Rick. "Let's move on." Off the friends trotted, stopping on every rise to look for ducks.

Suddenly Ollie shouted. "Look Rick, I see some excitement away over there!" Rick looked where Ollie was pointing and sure enough he saw what seemed to be two birds racing through the air as though playing tag. Then he saw this was not a game.

"That's Ruddy!" he shouted. "A hawk is after him! We've got to do something quickly." Hot, thirsty and tired as they were, Rick and Ollie raced across the prairie.



Ruddy was trying desperately to avoid the rapid dives and sharp talons of a hungry hawk. In spite of his terror, he spotted Rick and Ollie out of the corner of his eye. Swiftly he dove toward them. The hawk was closing in fast, talons set ready to strike.

Rick and Ollie crouched low and Ruddy swooped right over their heads. The two friends leaped up at the last moment. Now it was the hawk who turned in terror and tried to climb out of harm's way. He had not seen these two newcomers he was so intent on catching Ruddy. Off he raced at full speed, but two of his tail feathers were missing. Rick and Ollie had each caught one as the hawk swooped past.

"Boy, was I ever glad to see you," said Ruddy. He had glided down beside them after he was sure the hawk had gone. "I was out looking for you and got careless. I barely saw that hawk in time."

"We've been looking all over for you, Ruddy," said Rick.

Please turn the page

"We didn't see many ducks around here."

"That's right," said Ruddy sadly. "Usually there are a lot of us around here but some of the marshes have been drained and the potholes have dried up. This year we've had a hard time finding safe places for nests. My family is over there by those trees where there's a pretty good marsh. But even that did not have enough water in it so we could hide our nest properly. Crows and weasels got most of our eggs. We raised only two youngsters instead of the usual eight or so."

Soon the three friends reached the marsh. Swimming in a deep pool were Ruddy's mate and her two ducklings. They were pretty big but still were not able to fly.

"Gee, that water looks good!" said Ollie. "I can hardly wait to get in and cool off."

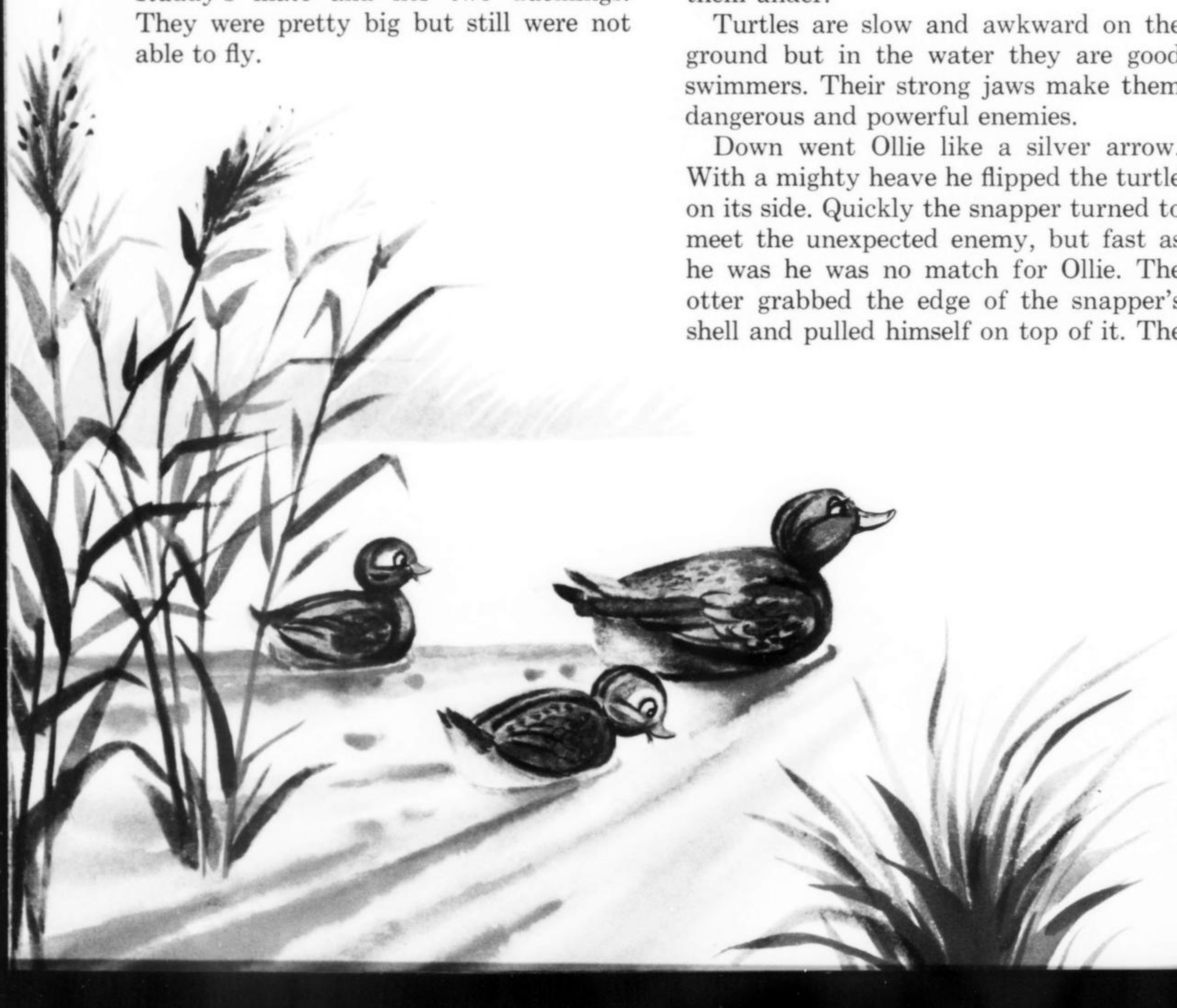
"You can go soon," replied Rick, "after we find a place to stay while we're here."

Ollie looked longingly at the water. Suddenly he saw a dark form rising swiftly from the bottom of the pool near the ducklings. With a mighty leap he dove into the water. The frightened ducks scattered in all directions.

Rick shouted angrily at Ollie for disobeying orders. Then he saw what was happening. A big snapping turtle was trying to catch the ducklings and drag them under.

Turtles are slow and awkward on the ground but in the water they are good swimmers. Their strong jaws make them dangerous and powerful enemies.

Down went Ollie like a silver arrow. With a mighty heave he flipped the turtle on its side. Quickly the snapper turned to meet the unexpected enemy, but fast as he was he was no match for Ollie. The otter grabbed the edge of the snapper's shell and pulled himself on top of it. The



Drawings by Lorin Thompson

snapper turned and thrashed wildly trying to dislodge his unwelcome passenger but Ollie held on grimly. Off across the pool they went with Ollie riding the turtle's back like a surfer. He whooped in glee.

Only when he was sure the turtle was leaving for good did Ollie drop off and swim back to Rick and Ruddy.

"Thank you!" said Ruddy. "We almost lost another young one that time."

"You're welcome," said Ollie happily. "That was fun and I got my swim sooner than I expected. But you sure do have a dangerous home."

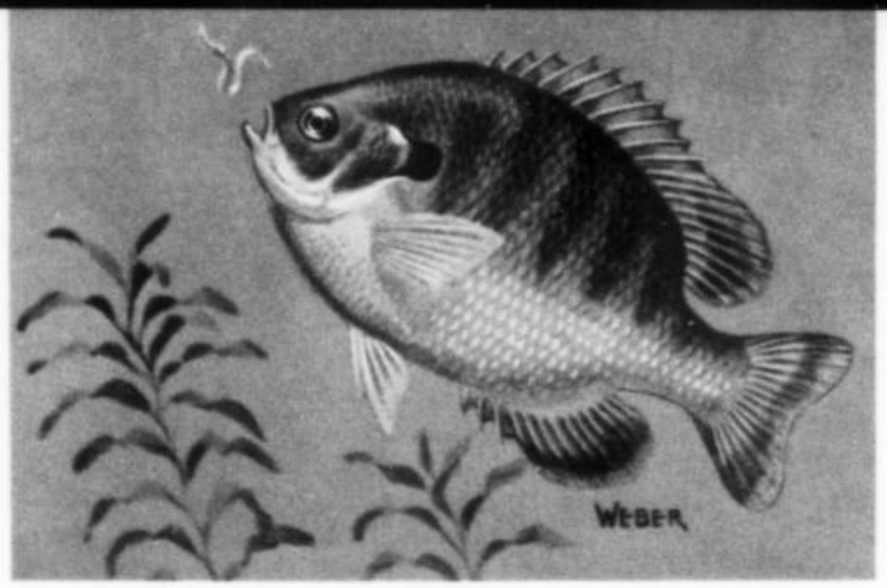
Ruddy's voice was sad. "Yes, we do," he said. "So many places have been drained and so many others have been dried up, we can't find good places to nest. All our enemies gather around the few places that are left. Sometimes I wonder how any of us manage to stay alive."

"We'll talk to Ranger Tom when we get home," said Rick. "Maybe he can tell people how important marshes and other wetlands are to wildlife and to people too!

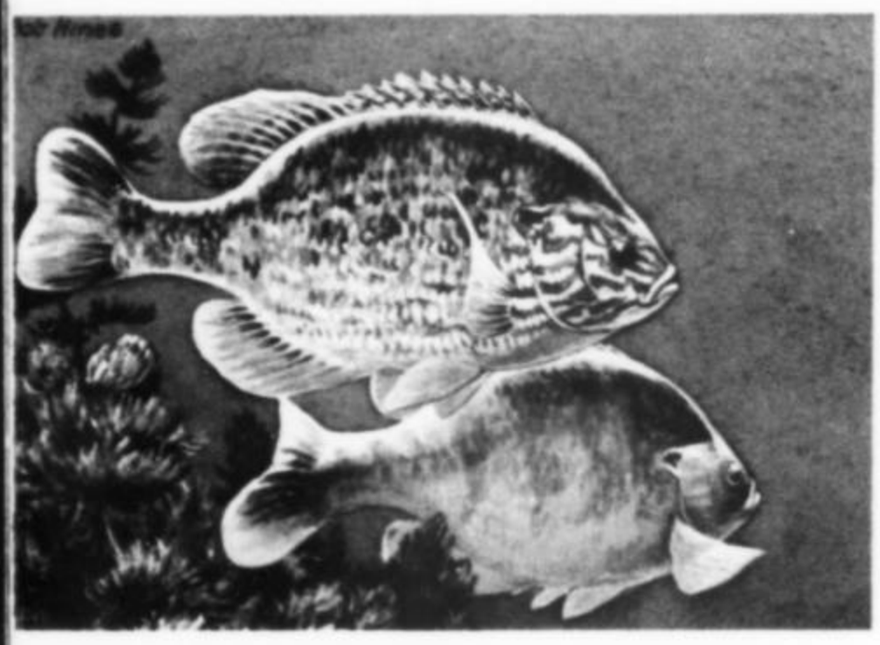
"Our young rangers will spread the word too. They know that many birds breed in swamps and much wildlife that is valuable and necessary to people lives there too. Marshes and swamps should not be drained unless there is a very great need for more land. Often people lose more than they gain by draining wetlands."

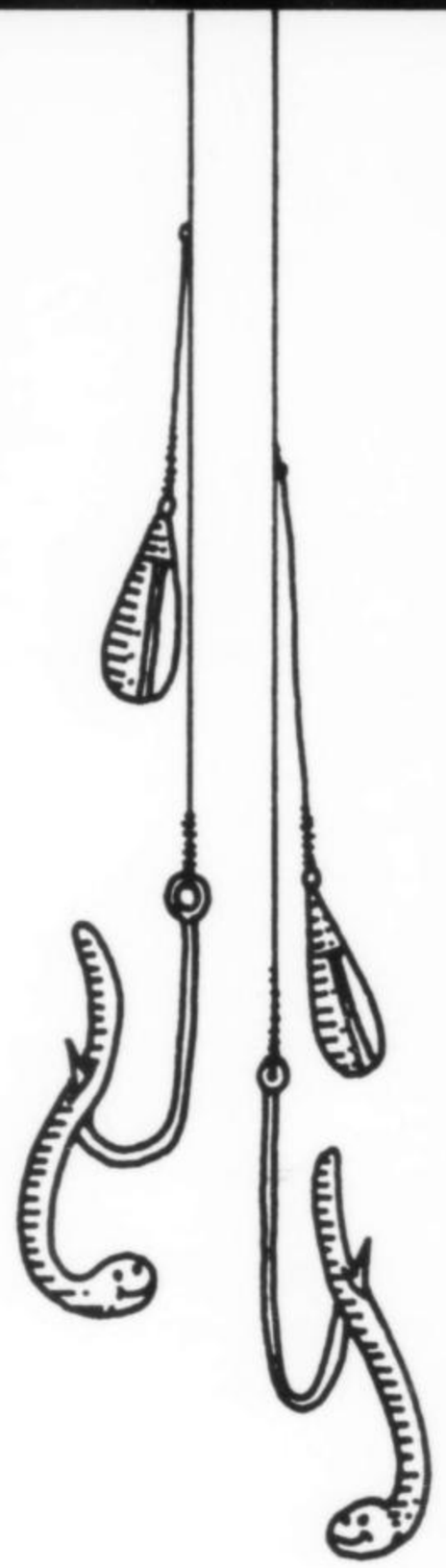
The End

LET'S GO FISHIN'

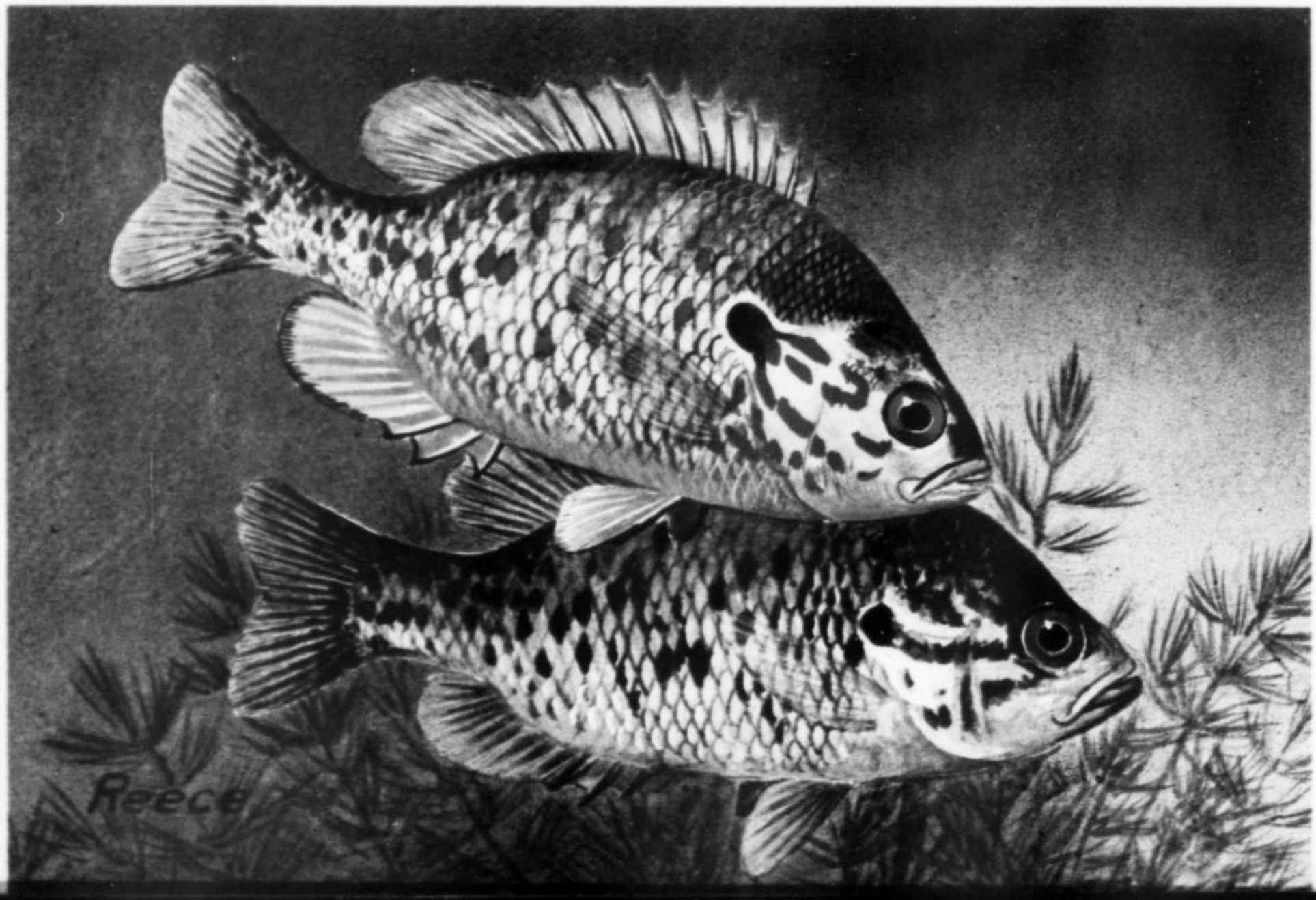


You needn't be an expert fisherman to catch enough "sunnies" for your lunch. On warm summer days these pretty little fish can be caught in lakes and ponds all across the country east of the Rocky Mountains.
A wiggly worm or a tiny tidbit of baloney to bait your hook is all you need to attract these scrappy fish. Though small they will give you a thrill when you have one on your line. There are several varieties, but the most common ones are the bluegill, the pumpkinseed and the orange-spotted sunfish pictured here.





Drawings painted for the National Wildlife Federation



Ollie Otter's FUN and GAMES

Riddles From Rangers

What fish do you find in a bird cage? (Perch) *Mark Conrad, N.M.*

What animals do you find in banks? (Doe and bucks) *Theresa Pfeifer, 11, N.Y.*

What goes 99-thump, 99-thump, 99-thump? (A centipede with a wooden leg) *Elisa Hatley, Wash.*

What room can no one enter? (A mush-room) *Don and Dave Crothers, N.D.*

Did they play cards on Noah's ark? (No, because Noah sat on the deck) *Carol Jurgens, 11, Va.*

ANIMAL DOCTOR: What seems to be the matter, Mrs. Kangaroo?

MRS. KANGAROO: I don't know. I just haven't been feeling jumpy lately.

Curtis Johnson, 9, Ill.

MOTHER: Why do you want to keep this bag of dirt, Jeannie?

JEANNIE: It's Instant Mudpie Mix!

Mary Luanne Parson, 9, Ill.

LITTLE SISTER: I'm thinking of something that is gray, has four legs and a trunk.

BIG SISTER: That's easy—an elephant.

LITTLE SISTER: No, a mouse going on a trip!

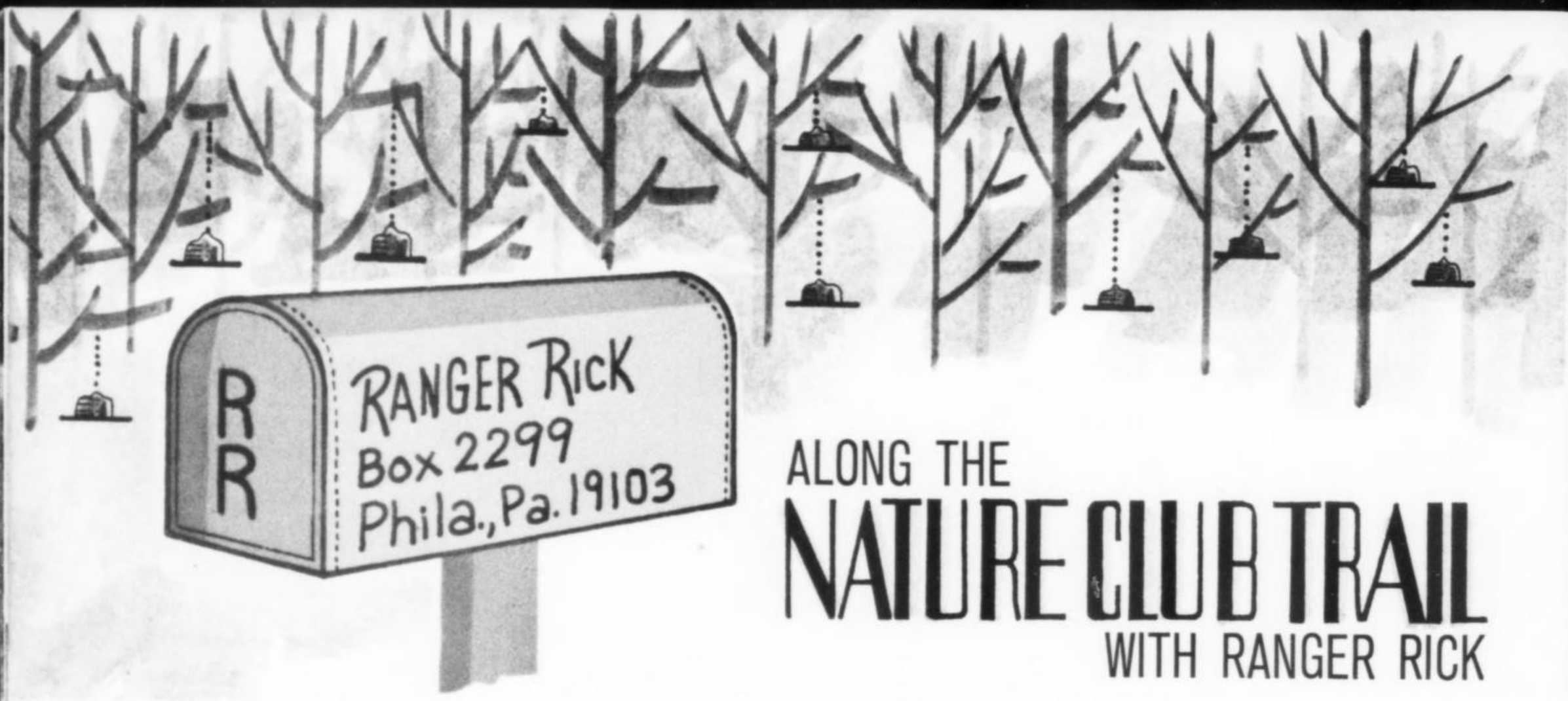
Nature Club Games

Dear Ollie: I have thought of a game. You first must have a shoebox. Then you need three small paper cups. Glue the cups in the box. Then you need some beans, pebbles or small stones. Players take turns tossing them at the box. Each time a player gets one in a cup he gets five points. The one who gets 25 points first wins.

—*Amy Wehrenberg, Age 8, N.Y.*

MAGIC LEAF. A leader secretly gathers a leaf from each of six different trees or bushes. He chooses one without letting anyone see it. Each player then runs and picks one leaf. The first to come back with a leaf that is the same as the one the leader chose gets a point. The game continues until all the leader's leaves have been used.

Send your favorite riddles, jokes and games to Ollie Otter, % Ranger Rick, P.O. Box 2299, Phila., Pa. 19103. Be sure to give your name, age and address.



ALONG THE NATURE CLUB TRAIL WITH RANGER RICK

Dear Ranger,

Last January, when our very first issue came out, the National Wildlife Federation had a Conservation Achievement Contest for all boys and girls who had joined Ranger Rick's Nature Club. Because we wanted to keep charter memberships open just as long as possible, we mailed contest entry forms to everyone whose application was received or processed up until late February, even though we originally had set the contest deadline as February 1. If you sent a contest entry in after that date, we want you to know that it was considered by the judges and we want to thank the thousands of Ranger Rick Nature Club members who participated in this year's contest.

Among the things Rangers had to do were to choose five conservation words and define them, tell what kinds of nature hikes they had taken, choose a North American wildlife family and name five members of it they could identify on sight, and tell what they had done to care for wildlife. Finally, they were asked to answer, in 50 words or less, the question: "Why is conservation so important to our country?" and to name a North American bird that became extinct in 1914. (It was the passenger pigeon! Did you know the answer? Some Rangers even knew that this bird was nicknamed "Martha" and that she died in the Cincinnati Zoo.)

One of the first two prizes was a $1000 College Scholarship Trust Fund, payable upon graduation from high school and upon acceptance at an accredited college or university in the United States. The other top prize was an all-expense-paid trip for the winner and his or her parents to San Francisco, California to attend the annual National Wildlife Federation meeting.

The winner of the college scholarship is Todd Lyons, age 7, of Miamisburg, Ohio. Todd has always been interested in nature. He has vacationed in the Canadian north woods and worked on his grandfather's farm. He likes to fish and has learned a lot about the habits of wild animals. He enjoys helping with farm chores and likes to plant things and watch them grow.

Miss Paige Martin, a ten-year-old nature enthusiast from Blue Mounds, Wisconsin, won the trip to San Francisco for herself and her parents. There she met

CONSERVATION ACHIEVEMENT CONTEST WINNERS: *Above*—Todd Lyons, 7, who won the $1000 college scholarship trust fund. *At right*—Paige Martin, 10, who won a family trip to the National Wildlife Federation Convention in March, is shown with J. A. Brownridge *(left)*, author of the "Ranger Rick and His Friends" stories, and Judge Louis D. McGregor, Federation president.

many of the nation's leading conservationists and was an honored guest at the federation's annual President's Luncheon. Paige made many friends and gave a short, but inspiring, speech before the 500 people who attended the special luncheon.

The ten next best entries received sets of bird and animal books. The winners are:

Catharine Clark, age 8, Scarsdale, N.Y.
Gilman E. Cole, age 7, E. Walpole, Mass.
Diane Lee Thomas, age 9, Culver, Ind.
Travis Anderson, age 9, Warwick, N.D.
Kimberly Ann Westergaard, age 9, Greensboro, N.C.
Barbara Zuehlke, age 10, Beloit, Wis.
Eric R. Ziel, age 9, Boone, Iowa
Franklin Betz, age 9, Amber, Wash.
David Erickson, age 8, St. Paul, Minn.
Barry Harris, age 9, Binghamton, N.Y.

Key Conservation Words

Did you ever notice that long words (once you learn them and know what they mean) are often easier to remember than short words? That goes for the key conservation words the contestants defined. Here they are: 1. Conservation 2. Erosion 3. Habitat 4. Overgrazing 5. Hibernate 6. Estivate 7. Ecology 8. Flyway

What do these words mean to you? Try defining them before you read the winning definitions.

1. CONSERVATION—the wise use and preservation of our wildlife and natural resources.

2. EROSION—the process by which the surface of the earth is worn away by water, winds, waves, etc.

3. HABITAT—the place where a given animal or plant naturally lives or grows.

4. OVERGRAZING—occurs when pasture or feeding area is not sufficient to support its wildlife population.

5. HIBERNATE—to spend the winter in close quarters in a dormant condition.

6. ESTIVATE—to sleep through the summer; the opposite of "hibernate."

7. ECOLOGY—the study of living organisms and their environment.

8. FLYWAY—a main route taken by migratory birds.

I know you will join me and my friends of the Deep Green Wood Ranger Patrol in saying a big "CONGRATULATIONS TO THE WINNERS!"

RANGER RICK

Rabbit ears, rabbit ears
What are the sounds a rabbit hears?
A song in the pine that I can't know,
The booming of rain, and the sifting of snow,
The thump and the skitter of deer on the run,
The closing of poppies when day is done.

Rabbit ears, rabbit ears,
What are the sounds a rabbit hears?
The scurry of chipmunks, a worm in the sod,
The pop of a shattering milkweed pod.
Mystery that flitters and disappears
Is gathered in secret by rabbit ears.

—*Solveig Paulson Russell*

There are many words in this poem that describe sounds. Can you find them? Now try this: Close your eyes and keep them closed. How many sounds do you hear? Try it on a dreamy summer afternoon in your backyard or a field or woods. Try it in your room on a rainy day, or on your front porch, or riding in a car. What do you hear? Write me about it. —R.R.

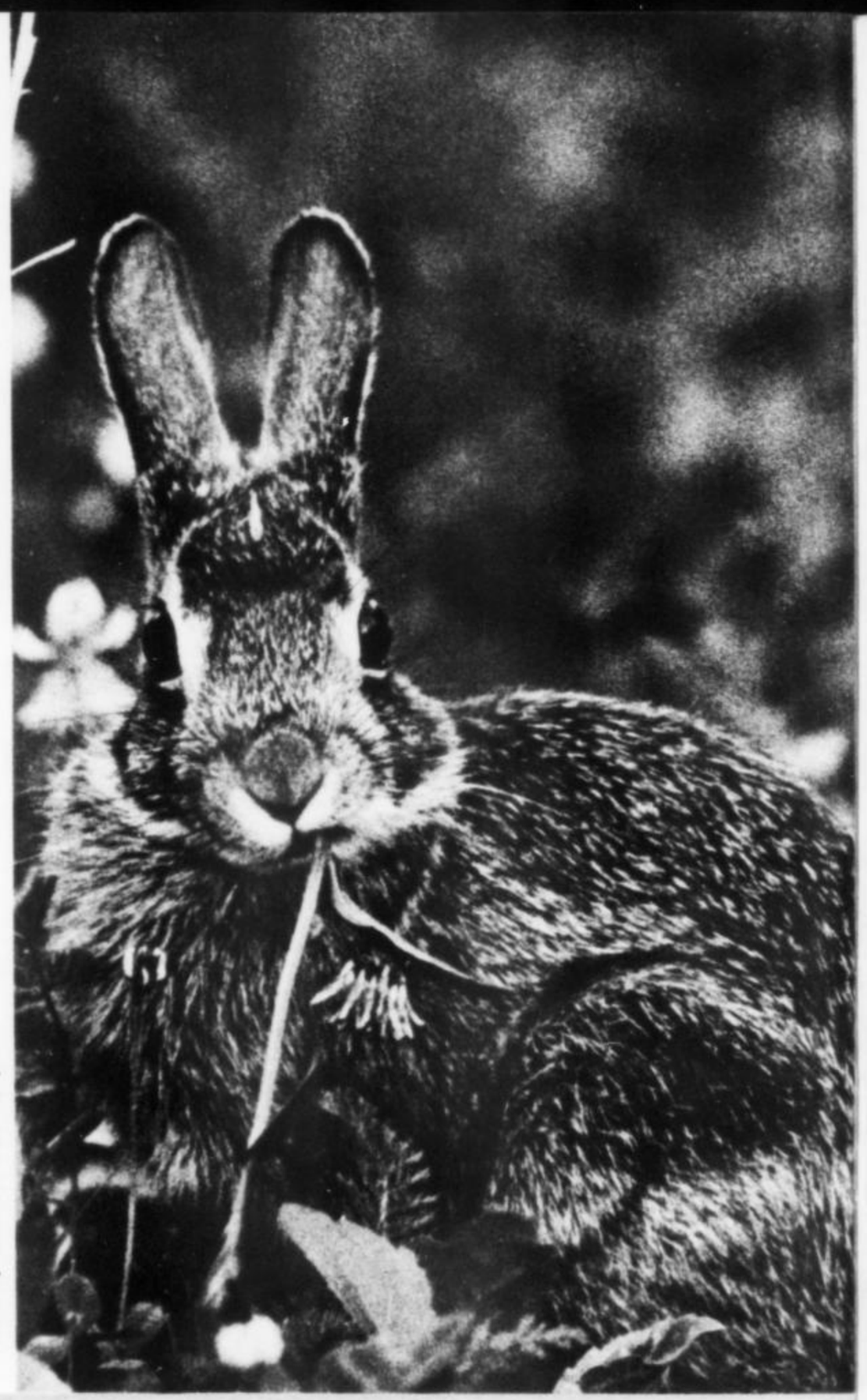


Photo by Leonard Lee Rue, III

HAIKU—from YOU. Many of your haiku verses were little gems! I will use more later, so please keep writing them. See "You and Haiku" on Page 35 of the February issue.

Prancing in the sun
Butterflies come gracefully
At each flower bud.
—*Marion Gewartowski, 9, N.J.*

Green bushes in back yard
Hold small treasures—flower buds
Bursting into flame.
—*Sean Colgan, 8, Calif.*

Silvery jets leave
Vapor trails, paths of white snow
Leading to the stars.
—*Stephen Davids, 9, Calif.*

As bright eyes sparkle,
A squirrel wags his bushy tail
In a friendly way.
—*Ty Hudson, 6, N.M.*

Someone was careless;
The creatures saw the flames;
They are all gone now.
—*Dede Quinones, Calif.*

Who-O-O Knows

by Wise Old Owl

Crazy Cats

1. What CAT is good on hamburgers?
   CAT _ _ _
2. What CAT flies and sings?
   CAT _ _ _ _
3. What CAT can be caught on a hook?
   CAT _ _ _ _
4. What CAT sails on water?
   CAT _ _ _ _
5. What CAT is a butterfly larva?
   CAT _ _ _ _ _ _ _ _ _
6. What CAT is on a willow tree?
   CAT _ _ _
7. What CAT is a plant cats like?
   CAT _ _ _
8. What CAT is a herd of cows?
   CAT _ _ _
9. What CAT grows in swamps?
   CAT _ _ _ _
10. What CAT is a California island?
    CAT _ _ _ _ _
11. What CAT is a pretty shade tree?
    CAT _ _ _ _

You can decode the following special message from Wise Old Owl by filling in the empty square below each letter with the letter that comes before it in the alphabet.

I	B	Q	Q	Z		W	B	D	B	U
J	P	L		S	B	O	H	F	S	T

The Question Box

This time, Rangers, it is your turn to help some of your fellow Nature Club members by answering their questions based on your own discoveries about nature.

1. We keep seeing this strange bird. My family and I think it is a hawk. It is bigger than a crow and has a hooked beak. It has spots on its belly, is red at the end of its tail and brown on top. Would you please try to name the bird?
—Susan Raudebush, Calif.

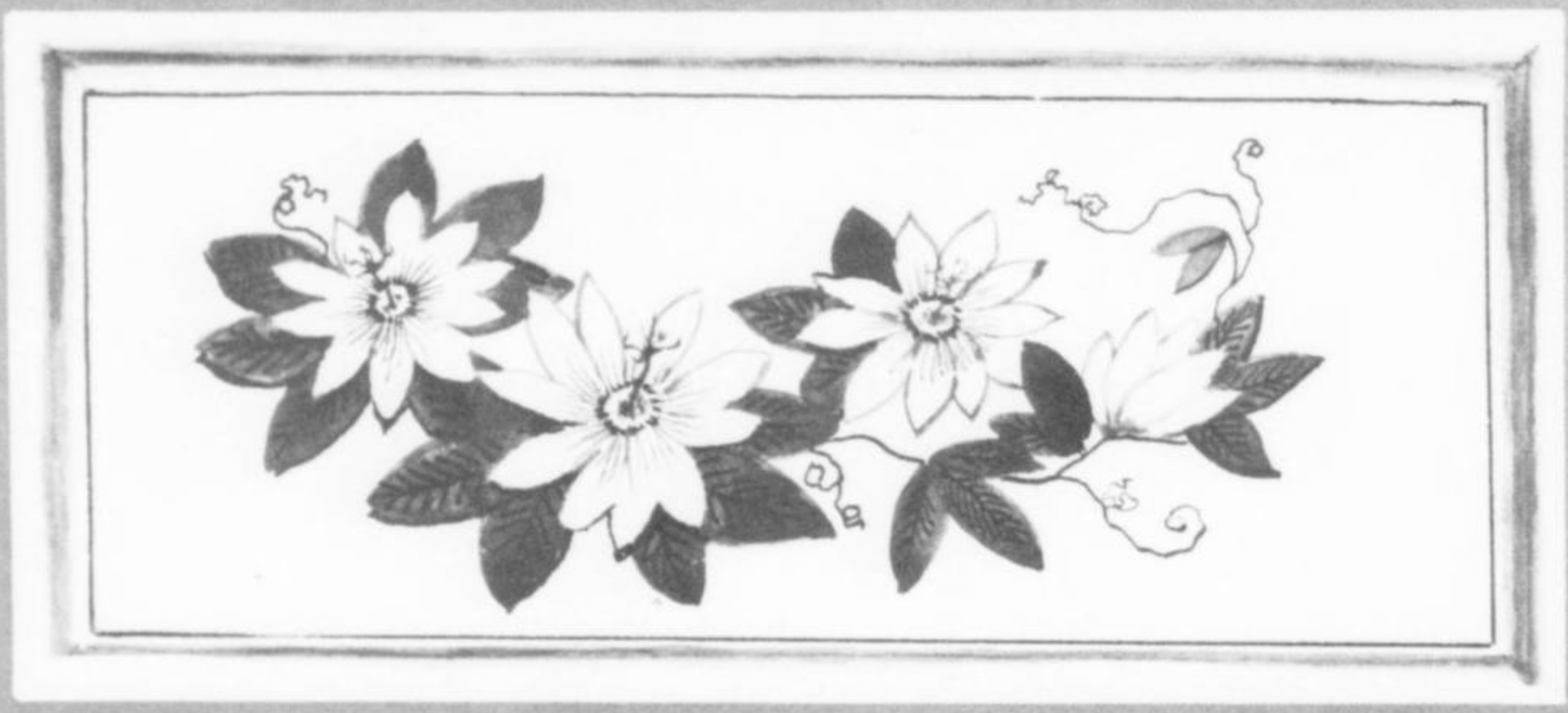
2. What is the difference in the personality of a plain cat and a beagle dog?
—Joseph K. Pinckney, 9, Tenn.

(The article on cats on Page 23 tells one difference between cats and dogs and gives a reason, but I expect Rangers will have some interesting opinions too.)

ANSWERS and your own nature questions should be sent to me in care of Ranger Rick, P.O. Box 2299, Phila., Pa. 19103.

Answers to Crazy Cats:

1. Catsup 2. Catbird 3. Catfish 4. Catboat 5. Caterpillar 6. Catkin 7. Catnip 8. Cattle 9. Cattail 10. Catalina 11. Catalpa



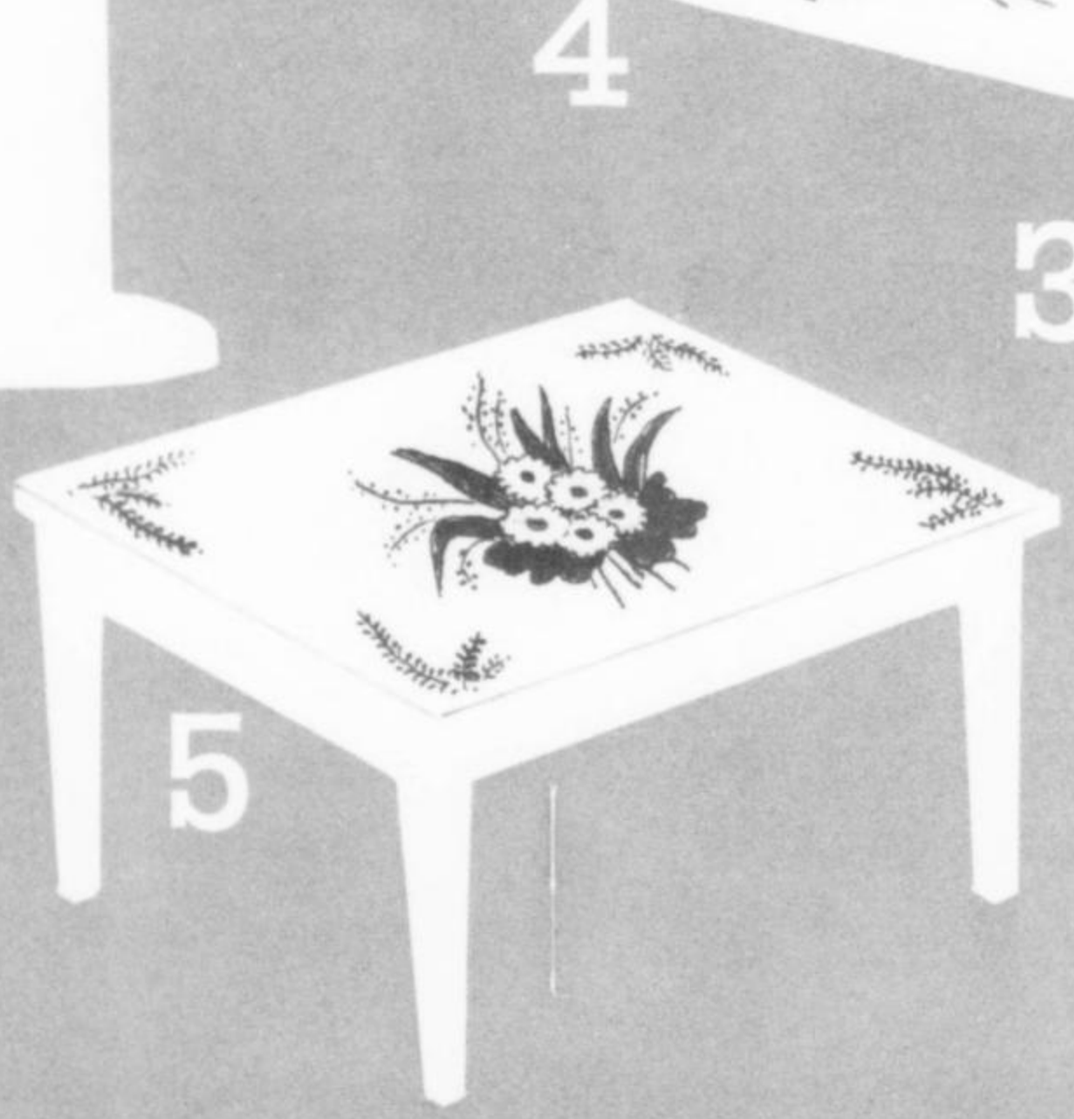
1

fun with pressed flowers

by Tina and Manning Lee

2

4



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Monday

Dear Joan:
I'm having a birthday party at 3 o'clock, Tuesday the 20th of May. I hope you can come.

Love
Betty.

From now until the first frost this fall, gardens, backyards, fields and roadsides overflow with flowers, grasses, weeds, pods, berries and leaves. Now is the time to start gathering the ones you like. Then you can press them and make flower pictures and other decorations.

There are many flowers to look for: daisies, black-eyed Susans and buttercups are but a few. There are numerous leaves too, such as maple, oak and horse chestnut. Pick them when they have reached the color you like. Ferns and thin vines are also suitable for pressing.

Pressing is an easy way to preserve flowers and leaves. They are best for making flower pictures. Have all your materials together before you start. You will need some black and white newspaper, one or two magazines, a piece of plywood or heavy cardboard as large as the magazine, and some heavy weights such as books or bricks.

Start with two sheets of newspaper folded in half to make four thicknesses. Arrange some flowers and leaves on half the folded page. Then fold the other half over the flowers and slip the newspaper folder into a magazine. You can put as many as three or four newspaper folders in a magazine at different places.

Put the board on top of the magazine and add the weights. Press the flowers this way for 24 hours. Then take the newspaper folders from the magazines and carefully remove the things you are pressing. Put them in fresh, dry newspaper folders and place them back in the magazine under weights. Do this each day for several days until the flowers are completely dry. Store the dry pieces in Manila folders between pieces of paper toweling until you are ready to use them.

Here are a few ways to use the things you have pressed. You will need: tweezers to position small pieces, scissors to trim stems, transparent glue (like Elmer's glue), plastic wrap and toothpicks.

1 Flower Pictures. Spread your dry materials on a piece of white paper for easier selection. Start with a piece of heavy paper the size you want your picture to be. Next select the grasses, leaves and flowers and arrange them to make a pretty picture. Glue the pieces in place.

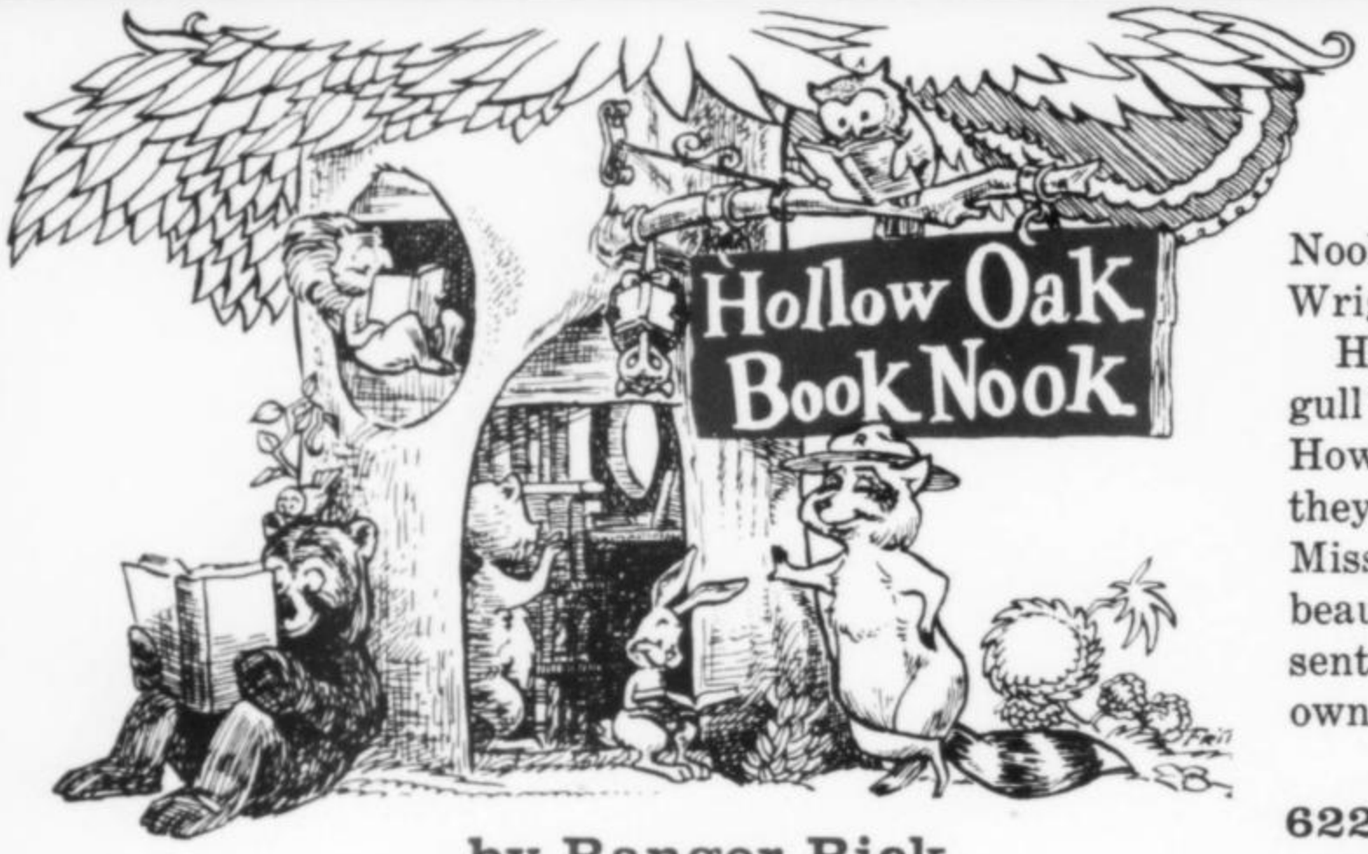
2 Lamp Shades. In a ten-cent store you can buy a lamp shade of white paper or frosted plastic. Arrange grasses, flowers and leaves in a pretty design. Glue them in place and cover the shade with a single thickness of plastic like Saran wrap.

3 Note Paper. To make pretty note paper start with a box of plain note paper. Decorate it with small, dried flowers. Hold them in place with glue.

4 Decorated Boxes. Use a solid-colored box, or cover one with plain paper. Make an arrangement of dried leaves and flowers on its top and glue them in place. For long-lasting results cover the box with plastic wrap.

5 Flowers Under Glass. If there are glass tops on furniture in your house, such as a dressing table or small side tables, make arrangements on them under the glass. These can be changed from time to time. They do not need to be glued as the glass will hold them in place.

There are many other ways to use pressed flowers. Ranger Rick would like to hear about your ideas. *The End*



by Ranger Rick

Hi, Rangers!

Described below are four fine books, never before listed in our report from the Hollow Oak Book Nook, which will give you lots of good information on subjects you've read about in this issue of Ranger Rick's Nature Magazine.

62186 – Shells are Where You Find Them

In the article "Beachcombing Collections" you were told about interesting things that can be picked up on the beach at the ocean, or along the edges of lakes and streams. *Shells are Where You Find Them* by Elizabeth Clemmons is a book that will give you still more advice about gathering treasure along the seacoast this summer.

Up and down the beaches of the Atlantic and Pacific Oceans are shells of all shapes and sizes, and each one has a name. Miss Clemmons tells you how to identify these shells, the best places to look for them, and how to clean, dry and store them. This easy-to-read book can start you off on a new hobby.

62195 – Look at a Gull

On page 44 of this issue is a fascinating article on our most common shore birds. So that you might read more about the most familiar shore bird of all, the sea gull, we're including in our Hollow Oak Book Nook column a wonderful new book by Dare Wright. It's called *Look at a Gull.*

How far can a gull fly? How big is a grown-up gull? Why do gulls screech? What do they eat? How do they keep warm? How many years do they live? You'll find the answers in this book. Miss Wright has combined a simple text with beautiful photographs she took herself to present the life cycle of a gull. You'll be proud to own a copy of this handsome book.

62202 – All About Cats

Now that you've met some "cat cousins" on pages 23-27 of our magazine, we're sure you'll like *All About Cats* by Carl Burger. Wild cats, cats in the home, roaring cats, purring cats – here's the cat family from a weasel-like member millions of years ago to today's well-loved house cat.

After introducing the wild cats, including the lion, cheetah, jaguar, and bobcat, Carl Burger discusses in detail the domestic cat, a favorite companion of man from the time of ancient Egypt. With admiration and affection, he writes about the breeds, the personality, and the place in history of this graceful animal.

62211 – The Friendly Dolphins

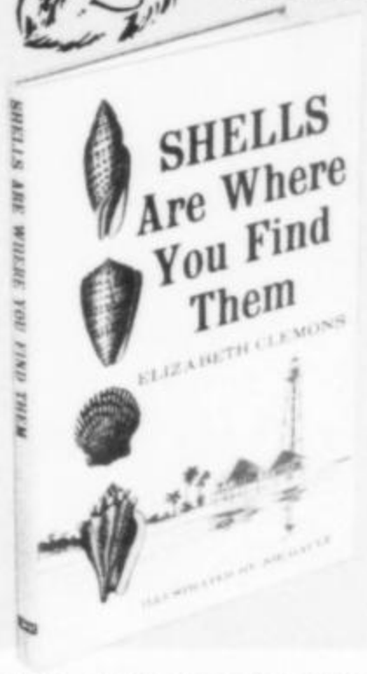
If you liked Margaret Durrance's delightful photographs of dolphins on pages 19-22 of this issue, you're sure to love a book called *The Friendly Dolphins.*

Dolphins are truly fascinating. They are certainly among the most intelligent animals anywhere. They can shake hands with their flippers, blow horns, and leap through hoops. They can even play basketball and baseball amazingly well. Flippy II, of Marineland, Florida, pitches, "argues" with the "umpire," and fields a batted ball to put the "runner" out.

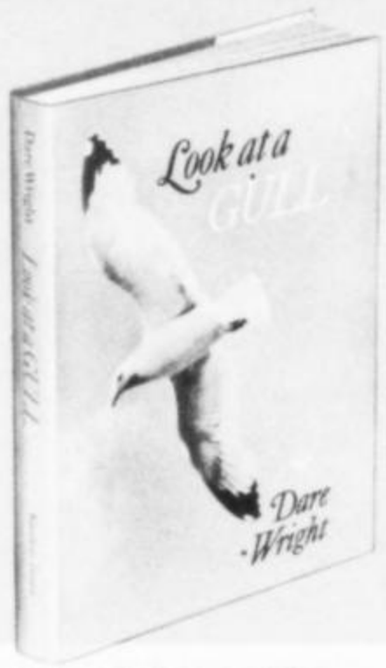
You'll read these and many, many other facts about dolphins in *The Friendly Dolphins* by Patricia Lauber, illustrated with photographs, and with drawings by Jean Simpson.

Best,
RANGER RICK

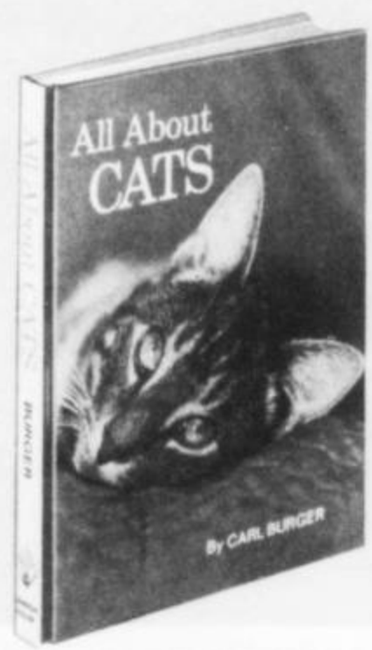
Hollow Oak Book Nook Selections for July



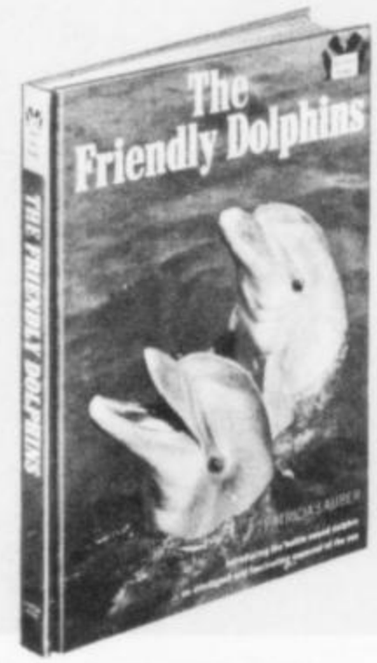
62186—**SHELLS ARE WHERE YOU FIND THEM**
by Elizabeth Clemmons, illustrated by Joe Gault.
For ages 5-12.
(Pub. Ed. $2.75) **$2.00**



62195—**LOOK AT A GULL**
written, and with photographs by Dare Wright.
For ages 5-8.
(Pub. Ed. $2.95) **$2.35**



62202—**ALL ABOUT CATS**
by Carl Burger.
Illustrated with photographs.
An Allabout book
for ages 9 and up.
(Pub. Ed. $1.95) **$1.60**



62211—**THE FRIENDLY DOLPHINS**
by Patricia Lauber, illustrated with photographs, and with drawings by Jean Simpson.
A Gateway book for children 8 and up to read all by themselves.
(Pub. Ed. $1.95) **$1.60**

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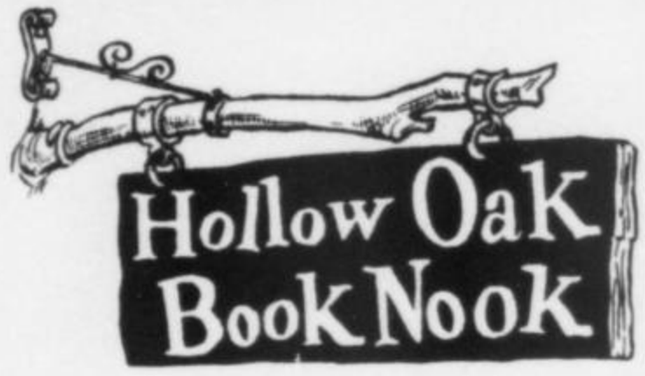

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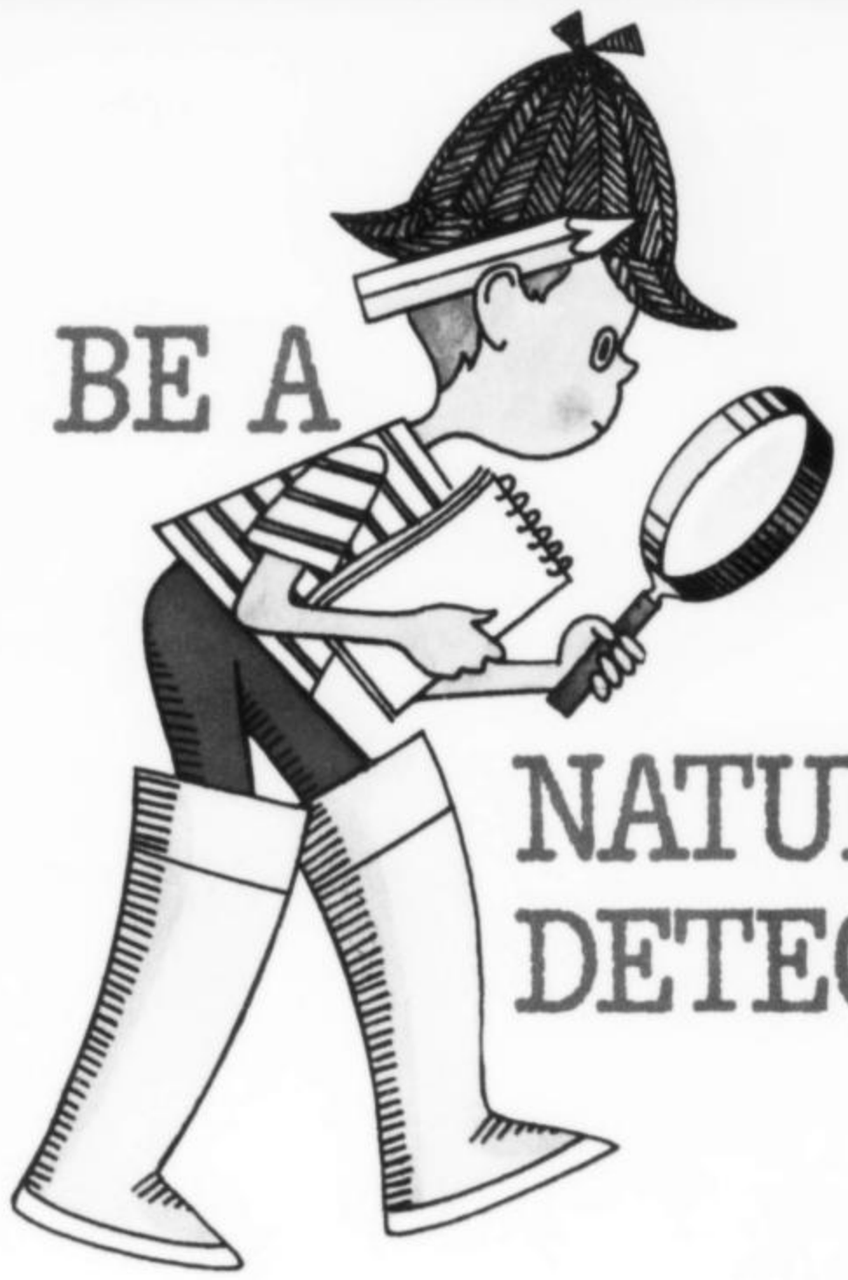
BE A NATURE DETECTIVE



by Anne Johnson

The world is made up of many, many pieces that lock together like a big puzzle. Nature is like this, too. It provides a home for every living thing according to what it needs. The study of the relations between living things and their surroundings is called ecology (ee-KAHL-oh-gee).

Let's explore just one piece of this puzzle by visiting a *bog* in the northern part of the United States. What is a bog? It is a place that is half water and half land like a small marsh or swamp. What lives in this strange spot? Let's put on high rubber boots, tuck a magnifying glass in one pocket and paper and pencil in another. Be sure to take an older friend or a parent along with you.

We can make a plant list as we go. With a few clues we can be like real detectives and unravel the amazing story of the bog. We can explore some of the plant life found in a bog, discover why some plants can't grow there and why others can't possibly grow anywhere else!

First we will see tall Christmas trees that surround our bog. These are *black spruce* trees. One clue about them is that their roots must stay wet. They seem to march right out to the edge of the bog where their toes are always a bit damp.

Farther into the bog grow the feathery evergreens called *tamarack* or *larch* trees. In the summer they have lovely tiny cones but in the fall they lose their needles just as the maples and oaks lose their leaves. The evergreens that we know also have cones but are able to keep their needles all winter long. So we call the tamarack the "evergreen that isn't!"

Going still farther in where the walking gets damp and bouncy, we spot a bush covered with beautiful white bell-shaped flowers swaying in the breeze. We'll want to add a reminder on our list to return in August. Have you guessed why? Those lovely white bells are the blossoms of the *blueberry bush*. In July and August it will be loaded with juicy blueberries.

Nodding among the blueberry bushes are the reddish blossoms of one of the most amazing bog residents, called the *pitcher plant*. As our eye travels down to the main plant we can easily see how it got its name. It has a cluster of small green and red leaves formed exactly like small cream pitchers!

This surprising plant eats insects! Now use that magnifying glass in your pocket. Take a careful look into one of the small pitchers. The lining is not smooth. There are tiny hairs that point downward. Take time to watch a fly resting on the lip of a pitcher. The pitcher is attractive to the fly and he wanders downward—never to

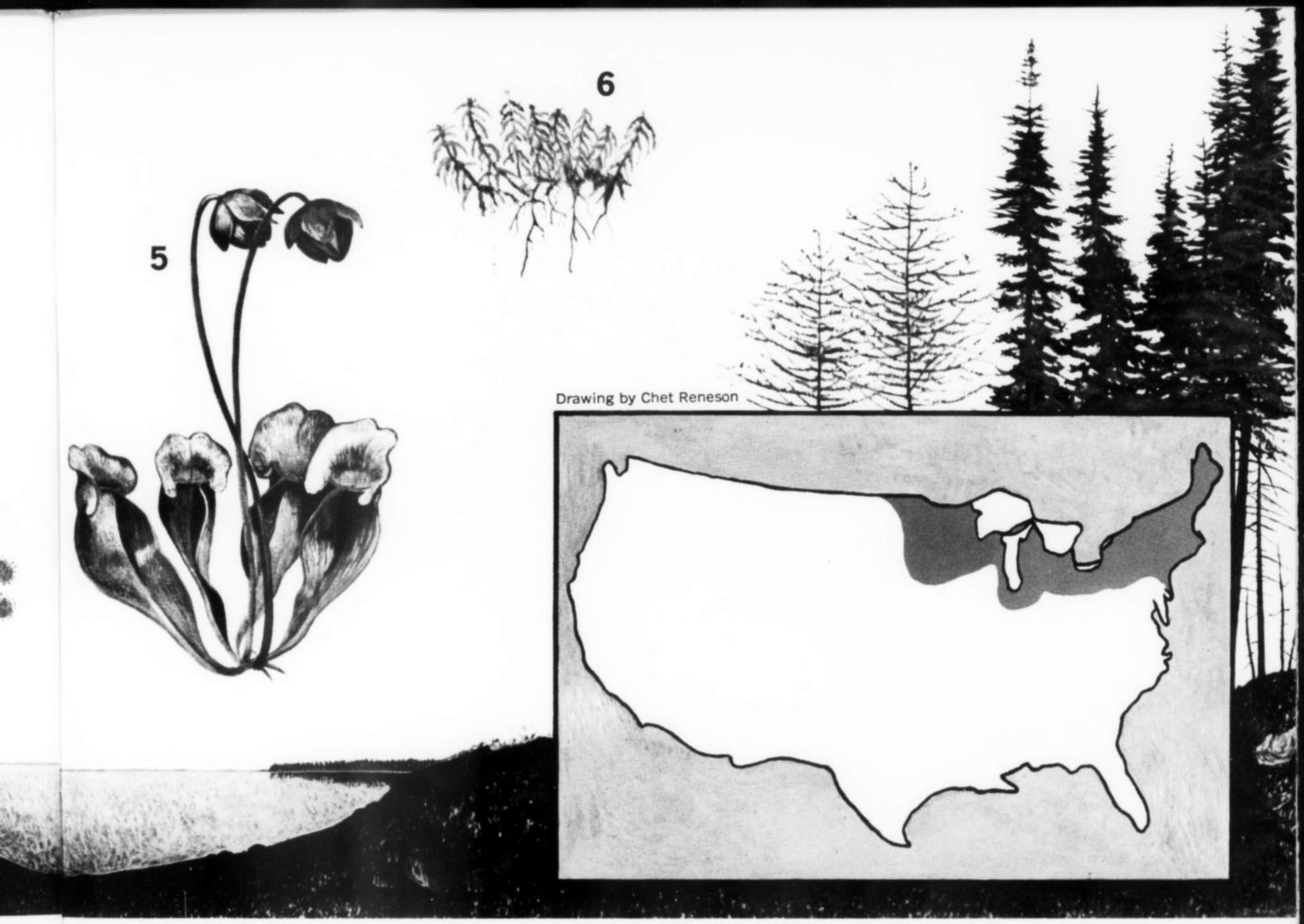
Please turn the page

This is a cross-view of a bog. At the top of the drawing the smaller plants are enlarged so you can see them more closely. Each plant is numbered: 1. Black Spruce, 2. Tamarack, 3. Blueberry, 4. Sundew,

return! Because he can't walk up against the thousands of hairs he finally slips into the base. The base contains a liquid that slowly dissolves the insect. In this way the plant is supplied with minerals that it cannot get from the acidic bog water.

Nestled at the base of the pitcher plant is another insect eater, the *sundew*. Out with the magnifying glass again! We can see the sticky liquid that glistens on the hairs covering the leaves. When an insect perches on one of these leaves, his feet stick to it. The leaf slowly closes around the insect and digests it.

Now we're bouncing on a floating mat of *sphagnum moss* which provides another surprise. People burn this plant in their fireplaces instead of wood—but not in the fresh green living form we see here. When it dies its moss sinks to the bottom of the bog where it forms a thick layer. After hundreds and hundreds of years it becomes *peat*. The peat is mined and then burned. Some of it becomes "peat moss" that we spread in our garden. It holds water and helps our plants stay moist. Take up a handful of the sphagnum at your feet and squeeze it. It's almost like



5. Pitcher Plant, 6. Sphagnum Moss. Look at the difference between the size of the man and the height of the plants. The map shows the denser bog areas in the northern United States.

a sponge. The whole bog is like a giant sponge storing needed water.

Although it floats on top of the water, this moss is not a very waterproof raft so watch carefully to be sure we're not sinking over our boottops. Each year this raft slowly spreads inward from the edges of the bog, making the pond in the center smaller and smaller.

This is a clue to the age of the bog: The older bogs have less pond area remaining than the newer ones.

Why do only certain types of plants grow here? Have you ever found a pitcher plant growing in the center of your lawn? No, because bog plants constantly need wet roots in order to live.

Certain plants need certain conditions in order to grow. If we find an area surrounded by black spruce and tamarack, we will also probably find a pitcher plant devouring insects because they all need the same soil and water conditions for growth. Natural things live according to their needs and their homes are where their needs are satisfied. As in a treasure hunt you can learn some of the clues and fit one more piece into the big puzzle.

The End

SEASHORE BIRDS

by Ryan B. Walden

A wonderful time to watch for seashore birds is during the summer. If you spend part of your vacation near the water, you will probably see birds there that you won't see in your own yard.

The birds pictured on this page are in the plumage they will be wearing this summer. If you observe them closely you can learn to identify them. Notice their size and coloring. Listen for their sounds. Watch the way they behave.

From a distance gulls and terns look almost alike. Both are mostly white with gray backs. Some black appears on their wings and tails and sometimes on the head. Gulls are larger and more plump. You can usually tell them apart by their bills. A tern's bill is pointed while a gull's bill is hooked. Both of these birds can be identified in flight by their long, graceful wings as they glide and soar in the air.

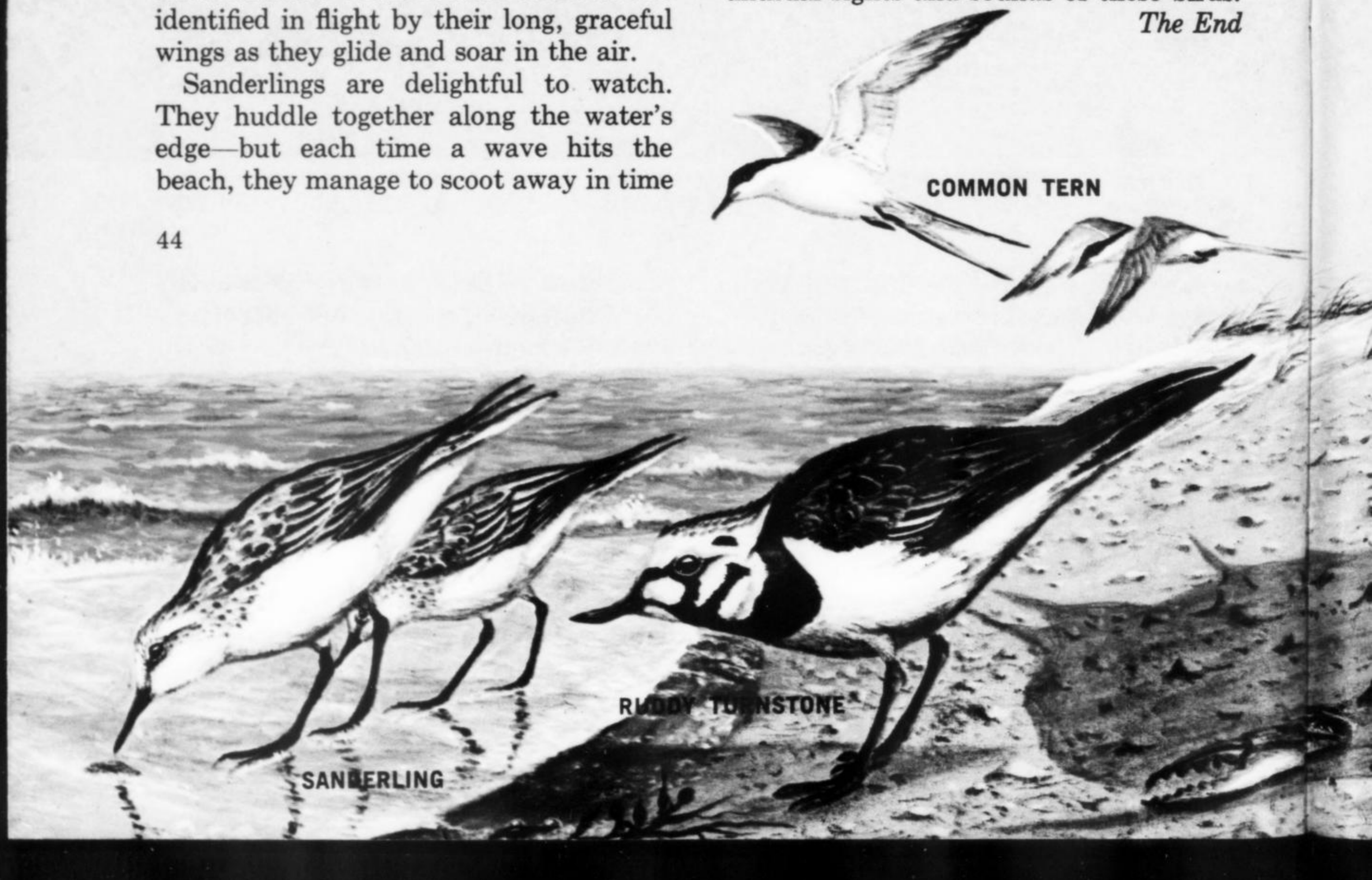
Sanderlings are delightful to watch. They huddle together along the water's edge—but each time a wave hits the beach, they manage to scoot away in time to avoid getting wet. They fly in close groups and sometimes do dives and turns. They have black legs and bills; their bodies are white and tan to reddish in color.

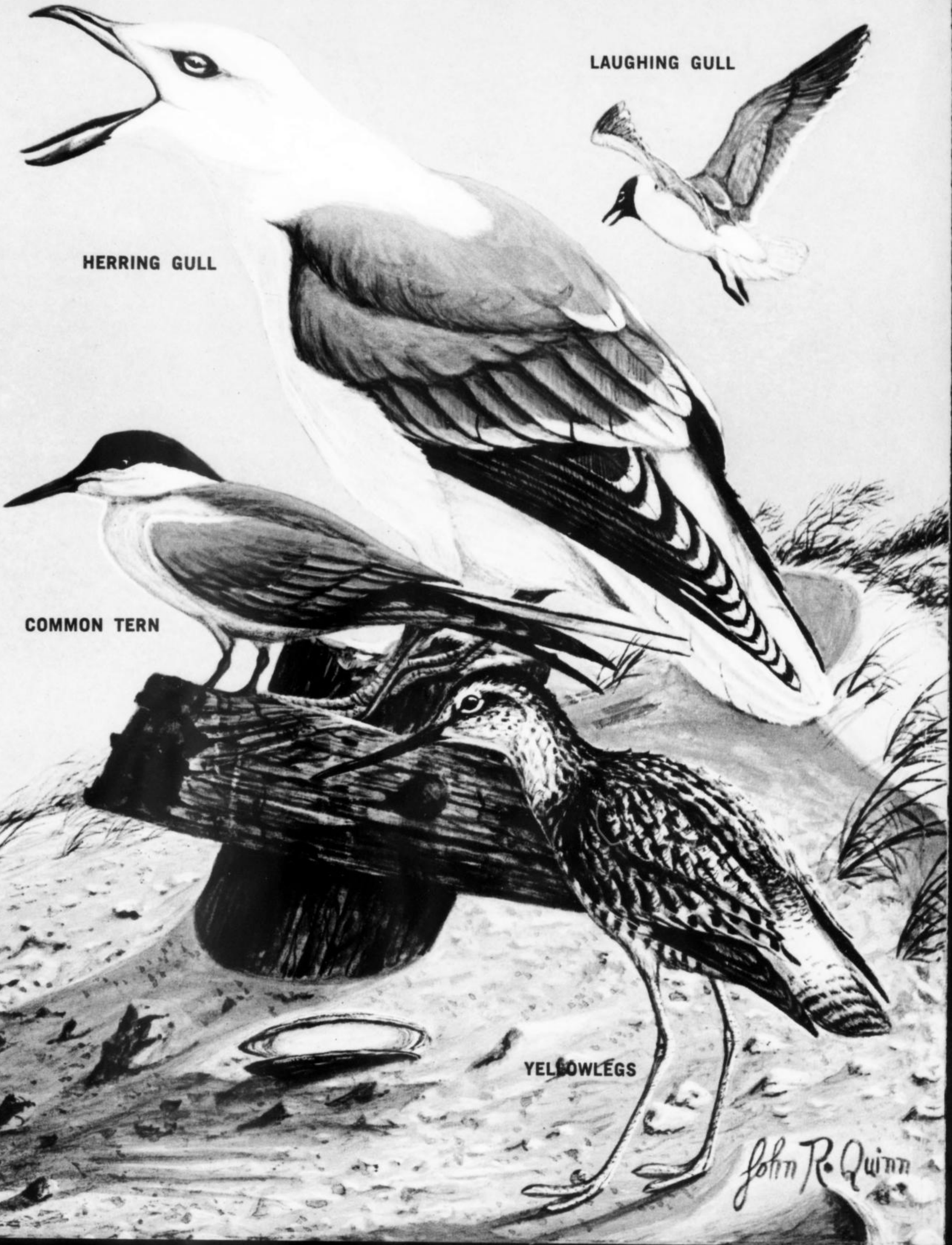
The ruddy turnstone is brightly colored compared to the other seashore birds in the picture. It is white with a rust-colored back. Its legs are bright orange. Its face is black and looks almost like a mask. The colors on its back appear in diamond shapes when in flight. This bird can be seen along the seacoast and the Great Lakes.

The yellowlegs looks like a large sanderling, but it has, as the name says, long yellow legs. Its beak is long and slim.

These are a few clues to help you identify some of the birds you may see. Keep your eyes and ears open for the unusual sights and sounds of these birds.

The End




LAUGHING GULL
HERRING GULL
COMMON TERN
YELLOWLEGS
John R. Quinn

LET'S TALK IT OVER

Summer is a delightful time of the year because there are so many things we can see and do outdoors. The days are longer and we are surrounded by growing things. Birds, insects and beautiful colors are found almost everywhere. The longer days give us more time to see all of these. Because the weather is warm we don't have to wear heavy clothes, and consequently we have more freedom to move about and look around. Let's talk about some of the things that can be done in your yard, or at camp, or when traveling with your family on vacation.

Have you ever seen a dragonfly? Be sure you read the story *Insect King of the Air* on Page 16. It contains many interesting facts about these insects. They have a number of nicknames. Maybe you have heard them called darning needles, mosquito hawks, snake feeders, horse stingers or mule killers. When you read the story you will learn why the dragonfly is called the "Insect King of the Air."

Do you know what "picket pins" are? I didn't until I read the story "*Picket Pin*" *Hotel* on Page 7. This is a fascinating story about the Columbian ground squirrel who is one of the liveliest and friendliest little animals in the world. In spite of being such a small animal, he may surprise you with all the things he can do.

This is the time of year when it is interesting and fun to "cloud-watch." The gentle summer wind blows clouds into a variety of shapes. Some look like animals, others resemble ships, houses, airplanes, people, mountains, hats, trucks or ever so many other things.

An interesting project is to record the clouds you see by tearing or cutting paper into the different shapes. Then paste them on larger sheets of paper and make a booklet.

If you go to the beach this summer you may gather seashells, seaweed or water-washed stones. On Page 10 you will find helpful information about *Beachcombing Collections*. When the seaweed is spread out and dried it is truly beautiful. If the stones are of different sizes and shapes you can glue them together to make an animal or bird; then paint a face or other features on it.

It is easier and more interesting to share and discuss your beach treasures when you can identify them by name. Look at the picture on the next page. Can you name the different kinds of shells, seaweed, rocks and stones which are shown there? If you don't know all of them you can go to the public library and look at the books about each one. They will help you identify them. Try some of these activities and have fun.

Miss Frances

Photo credits: Inside front cover photo of boy in Redwoods courtesy of the Savings and Loan Foundation, Inc., Wash., D.C.; Inside back cover photo at Jones Beach, Long Island, N.Y., by Robert Dunne; Back cover photo of dolphins from H. Armstrong Roberts, Inc.

the world by the sea

Have you ever walked
In the soft, cool sand
Where the great blue ocean
Laps at the land?

Go to the edge
When the tide is out,
And see what the ocean
Has strewn all about.

A large empty shell
From a horseshoe crab
Or strands of seaweed
Caught on a rock slab.

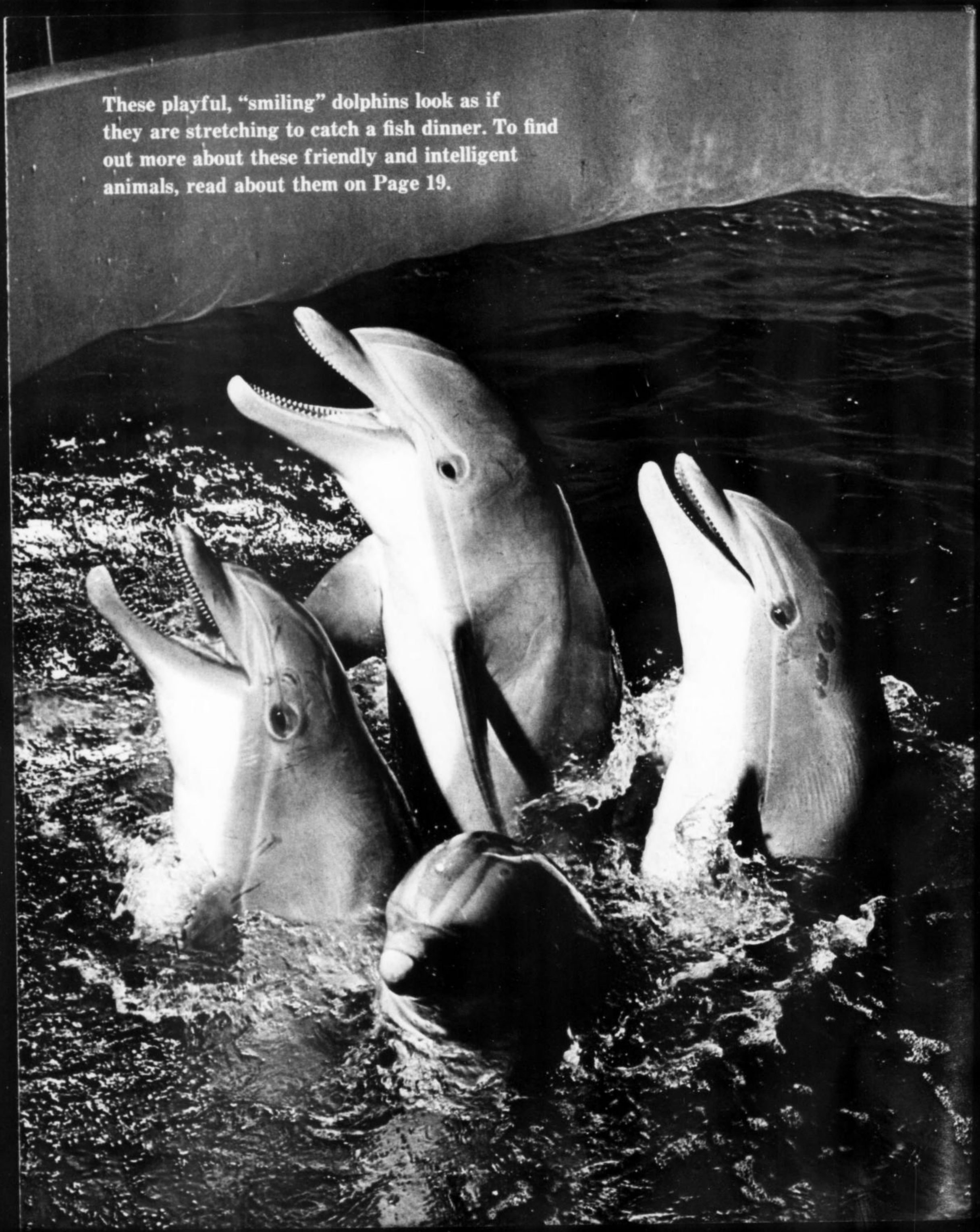
Perhaps a dried starfish
Or an oyster shell
May have washed up
In a storm's pell-mell.

Walk among the sand dunes
That winds build with time
High up on the beach
Where the ghost crabs climb.

A track of a dune-dweller
Will trace the beach mouse
Across the hills of sand
To his burrowed house.

Of many, many worlds
The seashore is made,
And even with time
It will never fade.

by Margo Duryeá



These playful, "smiling" dolphins look as if they are stretching to catch a fish dinner. To find out more about these friendly and intelligent animals, read about them on Page 19.